

# Afterwords: Considering the Postgraduate, Postdigital and Postcritical

Peter Goodyear, The University of Sydney,  
[peter.goodyear@sydney.edu.au](mailto:peter.goodyear@sydney.edu.au), ORCID: <https://orcid.org/0000-0001-9903-737X>

**Author's copy. Please use the published version if citing or quoting.**

Goodyear, P. (2021). Afterwords: Considering the Postgraduate, Postdigital and Postcritical. In T. Fawns, G. Aitken, & D. Jones (Eds.), *Online Postgraduate Education in a Postdigital World: Beyond Technology*. Cham: Springer.

## Abstract

I explore four topics relevant to research and practice in online postgraduate education. The first concerns the historic neglect of taught postgraduate education by higher education researchers and the challenges this creates for discussions of practice. For example, there is little consensus about how postgraduate and undergraduate courses and students differ, and whether research on undergraduate education generalises to the postgraduate level. I then raise some questions about three lines of analysis that are salient in other chapters of the book, and in wider academic writing on online and higher education. First, I ask whether the tumbril labelled 'learnification' is as pleasing a mode of transport as those now pushing it appear to think. Renewed attention to teaching, and celebration of its importance and difficulty, is timely, but is best accompanied by serious, continuing attention to learning. The two need not be in competition. Second, I argue for framing teaching, design and other educational work, as situated, proposing that this has implications for what educational workers, at all levels, can do in those segments of time when consequential change is possible. Third, I suggest that we need to untangle sociomaterial analysis from the temptation to debunk – especially where the debunking is aimed at outcomes of sincere educational work by our peers. The chapter plays a little with the traps and affordances of language, and weaves in some skeins of autoethnography, suggesting there are many ways we can learn from each other's writing, if we so choose.

**Keywords:** Learning from teaching, autoethnography, situated design, materials, postcritical, going meta-

## Introduction

I am grateful to the editors of this book - Tim Fawns, Gill Aitken and Derek Jones – for the invitation to contribute some thoughts to sit at the end of this collection, and for the opportunity to consider ideas raised in the preceding chapters and to explore some of their implications for further research. *Online Postgraduate Education in a Postdigital World: Beyond Technology* is a welcome addition to the literatures of two overlapping fields: teaching and learning in higher education and educational technology. While each of these is a well-established area, with many books aimed at researchers and practitioners, the area of overlap has, until recently, been relatively small. Moreover, most of the literature on teaching and learning in higher education has concerned itself, implicitly or explicitly, with undergraduate rather than postgraduate courses, and much of the literature on educational technology in higher education has taken the form of practical 'how to' guides for teachers. So the current book is important in opening up lines of inquiry in postgraduate education, and the authors' insistence on asking

hard questions, and challenging taken-for-granted assumptions about learning, teaching and ‘the digital’ is refreshing.

I am not, in these ‘afterwords’, providing a commentary on individual chapters. I’m not comfortable ‘sitting in judgement’, especially when the authors have no right of reply. Rather, I hope this chapter can be read as an encouragement for researchers and practitioners in higher education and educational technology to engage in respectful discussions about ways of making new knowledge (forging new understandings) and of making knowledge useful. In other words, I try to weave some ideas about actionable knowledge and knowledgeable action with themes from the chapters, and fragments from my own experience. ‘Respect’ does not rule out emotion. I have strong feelings about some of the issues, including the promotion of teachers and teaching over learners and learning, and the promotion, especially by academics, of critique over care. Let’s start with teachers and learning. (Critique of critique will come later.)

### **Clearing Some Ground, And the Air**

The verb ‘to learn’ and its gerund ‘learning’ have been in common use in English for more than a thousand years (Old English *leornian*). They connote coming to know, movement towards mastery of an art or skill, and the growth of understanding. In some parts of the British Isles, though the practice is dwindling, ‘to learn’ can be used colloquially with the meaning of ‘to teach’ – as in ‘I learned him his manners’. One of the lessons I learned at primary school was that manners matter a lot to many teachers, and that matching middle class manners was a key to being judged smart enough to benefit from an extended education. I polished my shoes, and my Ps and Qs, and passed the 11-plus. (I was one of only three children in a class of 35 to pass this notorious exam, which controlled access to grammar and other selective schools.) I joined the posh local grammar school, and started well: in all subjects except Latin. At age 12, I learned that my teachers believed that success in Latin denotes a fine mind, and that I would not be placed in the track leading towards Oxford or Cambridge.

Fortunately, I had not read the research literature on teachers’ attributions, with its compelling evidence about the pernicious role of teachers’ prejudices in shaping educational opportunities and outcomes. Over the remaining years of my high school career, I set out to prove each teacher wrong, by turns, focussing on coming top in subjects where I’d been written off. I became intensely competitive and intent on success, not through love of a subject or to beat my peers, but to challenge what seemed to me to be inadequate summations made by judgemental men – they were all men - who relied on fictive connoisseurship rather than evidence. It was too late for Oxbridge. That door closed at 13. But I ended by winning a school prize – and chose a book that fired in me a lifelong passion for curiosity-led research (Haggett 1965).

Do you detect a hint of self-pity in that paragraph? I hope not. But I am still angry, 50 years later. To be fair, that anger has been stoked by more recent experiences: the many meetings at parent-teacher evenings at which it’s become embarrassingly obvious that the teacher is unable to fit a child to a name; the readiness of teacher-educators to infantilise university students and treat them as errant schoolkids; the open contempt shown by some academics to ‘non-academic’ staff; the way some scholars of teaching dismiss technical knowledge. I struggle to subsume these neatly under a pithy heading, but they feel to me to be close relations – different faces of some clustering of fragile status and petty power.

I am curious about teaching. In some of my research I have observed it close-up and I have interviewed teachers about what they believe they are doing, and why. I’ve written some well-cited papers and books about teaching. I’m readily impressed by excellent episodes of teaching work and I recall good teachers with fondness and appreciation. And because of all this I react badly to accounts in the educational literature (not in this book) which romanticise

‘the teacher’, or which court popularity among the educational commentariat by centring educational work on teaching not learning.

### **What Did They Learn, And How? What Have We Learned, And How?**

Much of the core material in this book arises from experiences of postgraduate teaching, mostly ‘online’ and mostly at Master’s level. Many of the authors use their recent experiences working in online postgraduate education to make critical observations about issues that are of general interest (e.g. commodification of courses, the shrinking autonomy of teaching staff, diminishing resources and uncertain leadership). This is valuable, but I need to make the point that it is not the same as taking one’s courses and teaching *as objects of research*. There are many excellent approaches to making new knowledge. The concern I’m sharing here, is *knowledge of what?* The paucity of good descriptions of innovative postgraduate educational work – detailed insider accounts – limits what can confidently be said about the field.

In reading the chapters, and making notes towards the first draft of some ‘after words’, I found myself wondering about the students taking these courses: who they were/are, what they learned, and how that learning came about. A few of the chapters give a strong sense of the students, especially where we can hear the students speak directly [as in Chapter 1, led by Charles Marley (2021)], or where care is taken to acknowledge the heavily freighted and often fraught lives of mature students [as with Chapter 9, by Cathy Stone and colleagues (2021)]. But in many of the chapters, the students and their learning are harder to see.

Perhaps I should not be surprised to learn so little about what students were learning, and how, and why. The literature of higher education is notoriously silent on these matters. There are notable exceptions – some areas are very focussed on discipline-specific concerns, threshold concepts, professional competencies and standards, the nature and attainment of graduate attributes, and so on. But there are also vast acres of published work in which one reads of such-and-such an educational innovation, or approach to teaching, without glimpsing what it is that students have actually learned, and how, or what they experienced (beyond a simple sense of liking or hating it).

So a meta-question presents itself: what did the teachers of these courses, the writers of the chapters, learn from the experiences about which they are writing? And then we have the meta-meta-question, to generate even more ‘after words’. What can we, the readers, learn from reading these chapters? Not just what – but also how? Through what processes are these lessons learned, insights gained, and knowledge formed? What might be claimed about the trustworthiness and value of such insights? What feels both new and true?

(A knowledge of Latin won’t teach you this, but in Greek *meta* means *after* – and more. I’ll come back to this in the final section.)

The rest of this chapter talks about some things that I have learned from (and with) this book. Some points align with the clearly expressed preoccupations of chapter authors, but some arise from questions I’ve been asking myself about how we make knowledge and what work we expect that knowledge to do, once we have set it free.

I have tried to gather these thoughts under three main headings, though as even a cursory glance through the book will reveal, there are dense connections between many of the ideas in this area. I focus on:

- a) the challenge of recognising teaching without marginalising learning,
- b) educational design as a situated, knowledgeable activity, and
- c) a critique of the critical disposition.

But before that, I want to risk some more disclosure.

### **Positioning, And A Spoonful of History**

Like Kyungmee Lee (2021, this book), I've recently been experimenting with autoethnography, as a way to combine writing, inquiry and reflection. I mention this to help explain why I have shaped this chapter on a biographical and historical armature. Like Kyungmee, my first university lecturing position was in the Department of Educational Research at Lancaster University (1986). At a week's notice, I found myself teaching the MA course on '*Qualitative methods for the acquisition of evidence in educational research*'. (The 'scare quotes' around 'qualitative' were part of the formal title of the course. 'Colleagues' in Sociology and Politics had insisted, when the course was put up for validation at the Board of Studies, that the phrase 'qualitative methods' made no sense. My predecessor compromised by proposing that 'qualitative' would appear between quotation marks.)

In the mid-90s, I led the course team which designed and ran Lancaster's new Doctoral Programme in Higher Education. The Technology Enhanced Learning (TEL) Programme that Kyungmee describes in her chapter is a specialised spin-off from this original. Lancaster's Doctoral Programme in Higher Education has run successfully for over 25 years, but it did not grow out of nothing. It used structures, methods, materials, designs and dispositions from an earlier Master's programme, of which I was also the founding course director: the MSc in Information Technology and Learning (ITL), which enrolled its first students in 1989. The MSc (ITL) was set up as what we would now call a 'blended learning' course: a mixture of intensive, one-week, residential 'block' sessions interspersed with home-based study using printed resource packs, email and computer conferencing (Steeple et al. 1992; Goodyear and Steeples 1993).

Some of our colleagues in the Management School at Lancaster (notably Vivien Hodgson, David McConnell and Ginny Hardy) launched a Master's in Management Learning (MAML) that same year, also in a 'blended' mode, with substantial use of computer-conferencing (Hodgson and McConnell 1992). MAML and the MSc ITL were the second and third postgraduate education programs in the UK to make extensive use of online communications. In 1988, Birkbeck College London launched a postgraduate course in Organisational Psychology which in some ways was the true pioneer of this approach, but it was discontinued after a year, largely because the staff involved found the online work too labour-intensive (Hartley et al. 1994).

I was also the founding director of Lancaster's Centre for Studies in Advanced Learning Technology (CSALT)<sup>1</sup>. In 1991, CSALT became home to several large-scale research and development projects funded by the European Commission. Among these was JITOL: short-for 'Just-In-Time Open Learning'<sup>2</sup>. As with many EC-funded projects, the title was tweaked to appeal to grant proposal reviewers from industry – just-in-time production methods then being all the rage. Like many other academics, we had learned to play productively with ambiguity and contradiction. The JITOL consortium included some serious bastions of capitalism and the military-industrial complex (banks, big tech companies) and there were strong pressures to bring new ('ed-tech') products to market. But the longer-term benefits of the project arose from timely work that some of the academic team were able to do, most notably by translating ideas from Jean Lave and Etienne Wenger's recently published book on situated learning (Lave and Wenger 1991). In brief, this allowed us to formulate and test models for online open learning within geographically-distributed communities of practice, in which much of the valued knowledge was bound up in working practices in innovative workplaces (Lewis et al. 1992; Boder 1992; Goodyear and Steeples 1999). Naturally enough, the teaching

---

<sup>1</sup> See <http://csalt.lancs.ac.uk/csalt/>. Accessed 12 April 2021.

<sup>2</sup> See <https://cordis.europa.eu/project/id/D2015/it>. Accessed 12 April 2021.

teams from the MSc ITL and MAML played significant roles as researchers in JITOL and outcomes from JITOL and successor projects fed back into our teaching.

In various guises, both the MScITL and MAML continued well into the 2000s (Goodyear 2005; McConnell et al. 2012) and spawned a number of ‘daughter’ programs that used similar approaches, including Lancaster’s Doctoral Programme(s) in Education [mentioned above and described by Lee (2021)] and the Masters in Networked Collaborative Learning at Sheffield University (McConnell et al. 2012). In 1994 British Telecom funded the Lancaster team to run educational development workshops, helping share online teaching experiences across London, Sheffield, Edinburgh and other universities (Steeple et al. 1994, 1996) and in 1998 UK JISC funded them to organise a large-scale research, development and dissemination project that laid the foundations for the Networked Learning community (see Goodyear 2014; Networked Learning Editorial Collective 2021; Networked Learning Editorial Collective et al. 2021). Over the last 20 years, the Networked Learning community has run a biennial conference<sup>3</sup>, with open access conference proceedings, and has established a complementary book series<sup>4</sup> (see, e.g., Dohn et al. 2020). One might argue that it has created one of the most convivial sites for researchers and innovative practitioners to meet and discuss ideas about online undergraduate and postgraduate education, and has been a seedbed for theorising about many of the issues raised in this current volume.

I offer this history lesson for two main reasons. First, although what we are now calling online education is new to many people in higher education, there is a very substantial body of research and documented practice, extending back over 30 years and more. Very few of the headlines or ‘hot takes’ in social and mainstream media about ‘online’ or ‘online versus face-to-face’ are new. Most of the issues involved have been thought about, carefully and deeply, by people with skin in the game, for years. Secondly, the technologies we had available to us in the late 80s and early 90s would be regarded as unusable by people in universities today. Yet the modes of use, the high-level pedagogical frameworks, the kinds of relationships valued and formed, the ideas about ways of knowing and distributions of knowledge were almost as sophisticated 30 years ago as they are today. Put differently, technologies have improved beyond recognition, and permeated cultural practices to the point where we speak of a ‘postdigital’, but strong pedagogical ideas are rarely new.

Why is this history of research and educational innovation so little known today? How is it that the documented experience became inert and fragmented? I’m not suggesting that the historic work produced the last word on anything, but some of the first words can be found in neglected texts from 30+ years ago.

I will give just three examples, each of which connects with work described in chapters in the book: adopting design strategies to avoid teaching burnout, peer teaching and communities of practice, and the layered nature of hospitality.

Sonia Bussey (2021, this book) provides a compelling description of the many demands placed on online teachers. During our first year teaching the MScITL, we quickly experienced what it takes to be properly ‘present’ for our students. Like the team at Birkbeck, we might have been tempted to give up, but we stuck to it and survived by adopting two strategies: team teaching every course module and investing upfront time in creating task designs that would enable students to be more self-managing.

This also included sharing rationales for peer-teaching with students and emphasising the value of knowledge they were individually bringing to our online community of practice. [On these issues, see Jeremy Moeller’s piece (Marley et al. 2021, this book), the discussion by Cathy Stone and colleagues of students’ doubts about the value of interacting with their peers,

---

<sup>3</sup> See <https://www.networkedlearning.aau.dk/>. Accessed 12 April 2021.

<sup>4</sup> See <https://www.networkedlearning.aau.dk/>. Accessed 12 April 2021.

rather than their teachers (2021, this book), and Sharon Boyd's strategies (2021, this book) for helping students see and share their own expertise.]

Marley et al. (2021, this book), also raise the complex question of what and whether a teaching team should design prior to meeting each intake of students: an issue addressed under the heading of 'hospitality'. Online teachers' experiences documented in some of the other chapters speak to the inflexibility of university processes, rules and infrastructures that have evolved for on-campus, face-to-face teaching. With the MScITL, the requirements of a course mixing one-week blocks of residential teaching-learning time with longer periods of home-based study, using rudimentary online communications systems, proved even more challenging for established systems. For example, there was just one port for dial-up access to the university's main computer: the only machine available to support email and computer-conferencing. The timetabling unit were unable to schedule teaching rooms for block teaching. Also, there was no catering on campus on a Sunday and the refectories serving undergraduate students did not open till 10am on a Monday morning. So the course team cooked a welcoming Sunday evening meal for the arriving students, and gave each of them cereal, milk, bread and jam, bowls, plates and cutlery, to make their own Monday morning breakfasts. Charles Marley, and Jacques Derrida, would have done the same. We did not wait to see who turned up, or check whether they had health-related or belief-based dietary requirements. We cooked vegetable curry for everyone. Reflecting on interpretations of 'hospitality', I suggest that:

- a) the notion that 'hospitality is underpinned by the impossibility of predicting the students that will arrive or what they will need' (Marley et al. 2021, this book) needs refinement,
- b) what a course team should do ahead of time can be based on envisaging common, urgent needs and a well-grounded sense of how and when other needs can be elicited and catered for, and
- c) hospitality, upfront design and designed structures are best understood as *nested*. One can set up nested or interleaved structures that alternate 'tight' and 'loose' arrangements.

Members of the MScITL course team began publishing about these matters from the early 90s onwards. See, for example, Steeples, Johnson and Goodyear (1992), Goodyear and Steeples (1992), and Steeples, Goodyear and Mellar (1994) on upfront design; Goodyear (1995, 1996) on peer-teaching, situated learning and communities of practice; Jones, Asensio and Goodyear (2000) on 'tight-loose' design issues and Goodyear (2005) for a narrative account of the scope and scale of infrastructural problems to be overcome – and the *breadth* of hospitality needed – in running the MScITL programme.

It is important to point out that in creating, reflecting on and publishing about our experiences, we were able to draw on writing by other pioneers of open, distance and online learning like Robin Mason and Tony Kaye (1989), Linda Harasim (1990), Starr Roxanne Hiltz and Murray Turoff (1978).

At risk of sounding hard-done-by, I wonder why these names, publications and ideas feature so rarely in the current collection, and in other contemporary writing about online education. What is learned can be forgotten. Those writing today about the postdigital may see themselves as inhabiting a different intellectual tradition, and even different domains of educational practice. Or perhaps the random paths by which people move into online teaching can't be guaranteed to provide glimpses of prior learning?

## Master's Courses as Neglected Sites for Study, And the Opportunities That Arise

Gill Aitken and Sarah Hayes (2021, this book) note that online postgraduate teaching is an under-explored area. I agree, and I'd add two further thoughts. First, as I've just argued, some of the early travellers' tales may have been lost from view. Second, postgraduate education as a field is badly neglected.

Peter Knight was a member of the original course design team for Lancaster's Doctoral Programme and among the many writing projects on which he was working at the time was a book on Master's-level courses (Knight 1997a). He observed then that there was very little research on taught postgraduate courses. Relative to research on undergraduate education, the postgraduate sector, and especially the taught postgraduate sector, remains a strangely neglected area.

The rapid growth of coursework (taught) Master's programs in the 1990s, and their growing economic importance for the universities that offered them, in Britain, the USA, Australia and elsewhere, began to lead to calls for research, to address a number of areas of uncertainty and ignorance. For example, McInnis, James and Morris (1995), in a report to the Australian federal government, pointed to widespread doubts about the quality of taught postgraduate degrees, arising particularly from uncertainties and disputes about the value of, and relations between, 'traditional academic goals' and 'professional or vocational needs' (McInnis et al 1995: 4). Knight (1997b) pointed to the urgent need for research on a range of interconnected topics relevant to taught postgraduate courses, including postgraduate student learning, teachers' working conditions, better conceptualisations of research-practice relations, definition of standards, quality assurance and marketing, composition/demographics of the postgraduate student population, and the generalisability of research on undergraduate student learning to more mature and/or experienced postgraduate populations (see also Hounsell 2021 this book).

But postgraduate coursework is still a Cinderella area. Peter Knight's ground-breaking edited collection on Master's courses (Knight 1997a) has accrued only 30 citations and as Kiley and Cumming recently observed, after reviewing the international literature

... published research on master's level education – especially when compared with that of either the doctorate or the undergraduate – is at a low ebb. (Kiley and Cumming 2015: 106)

Scanning through recent, well-regarded books on 'the university' (Ashwin 2020; Barnett 2018; Collini 2012; Connell 2019; Croucher and Waghorne 2020; Trowler 2020), I struggle to find explicit treatment of taught Master's courses or consideration of distinctive issues pertaining to postgraduate courses. One could be forgiven for thinking that 'teaching' means 'teaching undergraduates'.

The slowness of research on, and theorising about, Master's courses creates a problem for books like this one, on online postgraduate education. Neither authors nor editors can safely assume that readers will share a sense of what Master's courses are, or should be, or even whether they should exist at all. In the worlds beyond the book, doubts are expressed about whether a Master's course must necessarily be more advanced, in conventional academic terms, than undergraduate courses in the same or cognate disciplines. (What then of 'conversion' courses?) Doubts are also expressed about the value of different forms of knowledge and ways of knowing. (What then of induction into academics' epistemic practices, or those practiced in a profession?)

As Dai Hounsell puts it (2021, this book), Master's degrees have a *polymorphic* character – they take multiple forms. I would add that they are also *polyvalent*, not simply in the narrow medical sense that they might protect one against multiple dangers, but that they

are offered for different mixtures of purposes, with different ends in sight [see also Derek Jones's comments (2021, this book)]. Our MScITL was initially designed as a conversion course for unemployed graduates to retrain for jobs in the emerging technology-based education and training sector(s). It was funded under a Thatcherite initiative – the High Technology National Training (HTNT) programme – and was also used to demonstrate that the Open University (a Labour invention) was lamentably slow and bureaucratic in its course design and development practices. I harbour a complicated sense of pride in the fact that we fed a higher proportion of women into the maw of capitalist industry than any other HTNT programme, and I still think universities ought to have the capability to design, validate and implement a new Master's program in under a year, as we did. (There's more to socialism than helping students name the structures of oppression.)

Which leads me to another point about the costs of providing online postgraduate education. As the editors observe in their introduction, and the argument is illustrated in a number of chapters in the book, it is a mistake to assume that good online teaching is cheap. But as students point out [see e.g. Arfang Faye, Angi Pinkerton and Elizabeth Hurst in Marley at al. (2021, this book); see also Cathy Stone and colleagues (2021, this book)], there are life-changing economic advantages that flow from being able to afford online study and weave it around work and family responsibilities. Thinking clearly about issues of cost-cutting, profit-making and managerialism becomes more complicated when we also take into account access and affordability for students.

So, there is much more work that can and should be done to build upon what we know, have known, do, and have done, in the area of online postgraduate education: inquiry and reflection, as well as course and curriculum design and development. In pursuing that agenda, I suggest that we could benefit by resolving to: rehabilitate teaching without marginalising learning; become more pragmatic about the nature of design and design knowledge and make critique a tool for both analysis and action. I expand on each of these in turn, in the next three sections.

### **Rehabilitating Teaching Without Marginalising Learning, And Especially What to Learn**

I'm sure I'm not alone in finding the word 'learnification' irritating, particularly when it's accompanied by a self-satisfied smile and a gentle rocking back on the heels – as if the speaker half expects a punch on the nose.

If we can walk and chew gum at the same time, then we can value both teaching and learning and we can treat both – and their relations - as worthy objects of research. I've already mentioned my aversion to romanticising teachers and teaching, and I will come back to the problem of conflating a critical disposition with an aversion to psychology and the learning sciences.

I agree that teaching is very important. It is underestimated, undervalued, misrepresented and marginalised in a variety of ways in universities. This is well captured by Aitken and Hayes (2021, this book), and underpins a number of the concerns expressed by authors in other chapters. We need better shared understandings of how online teaching is done, and sharper accounts of teachers' individual and collective agency.

That said, 'agency' itself is in need of careful attention. As Nieminen and colleagues observe, educational researchers have mobilised at least four distinct sets of accounts of agency, drawing on a range of sociological and psychological traditions: ecological, authorial, socio-material and discursive (Nieminen et al. 2021) and to this I would add Sannino's theory of transformative agency, which might be seen as endemic to education, rather than an import from other domains (e.g. Sannino 2020). We would also benefit from some recognition of the difficulties arising, and some smart thinking about how to proceed, when we bring together accounts of agency and materiality. There is no space here to elaborate on the point, but as

Ingold (2011: 215) puts it: ‘the more theorists have to say about agency, the less they seem to have to say about life’.

Moreover, we need to be able to theorise and understand teachers’ actions without abandoning the best of what we know about the mind, including what we know about how, why and what people learn – whether in the role of student or teacher.

At a minimum, I would say that a shift of attention from the psychological to the sociological, and from learning to teaching, is *ill-timed*, because recent developments in research on thinking, doing and memory are constructing fruitful accounts of the connections between mind, body and world, not least through work on ecological, embodied, embedded, enactive, and extended cognition. Among other liberating achievements, such work helps relocate cognition, from being an individual property to arising in the relationships between a person and their material and social worlds – the things and people around them. Accounts of what teachers do, and why, that depend upon implicit, vernacular or ‘folk’ theories of mind (and learning and capability), lock inquiry and professional development into an old cul-de-sac.

This self-inflicted myopia is compounded by mischaracterisation of research on learning and on design for learning. For example, Tim Fawns and Christine Sinclair (2021, this book) quote Gert Biesta as saying: ‘learning’ is a term that ‘denotes processes and activities but is open—if not empty—with regard to content and direction’ (Biesta 2009a: 39). On this point, I find Biesta unconvincing. I don’t know a textbook or a course in the learning sciences that would agree that there’s nothing to say about content and direction (the ‘what’ and ‘why’ of learning). Indeed, those antecedents of educational design that can be found in instructional (systems) design put ‘what?’ as *the* orienting question (see, e.g., Mager 1988). Earlier in his paper, Biesta also says

the past two decades have witnessed a remarkable rise of the concept of ‘learning’ with a subsequent decline of the concept of ‘education’ (for empirical support for this thesis see Haugsbakk and Nordkvelle 2007). (Biesta 2009a: 37)

I wondered about this empirical support. Haugsbakk and Nordkvelle (2007) do indeed offer supportive bibliometric data, but it is worth noting that (a) the material on which they draw consists of Norwegian government policy documents and (b) they cite Biesta on the rise of the ‘new language of learning’ at the very start of their paper. In other words, (b) they are looking for signs of the rise of this language, and (a) their dataset tells us about policy texts rather than what researchers and practitioners are doing in the learning sciences (or even in education).

My main point here is that reference to ‘learnification’, which Biesta coined as a ‘deliberately ugly term’ (2009a: 38), is on the rise: as a badge to discredit, and indeed ‘other’ (ugly labels are good for vilification), researchers and practitioners who see learning, design for learning and the characteristics of learning environments as complex, needing careful study, and important, if not central, to educational work. If ‘learnification’ is ‘the transformation of an educational vocabulary into a language of learning’ (Biesta 2009a: 36) then I am even more worried about a language of teaching that is mute about learning, capability and the mind. In a contemporary article from 2009, on Dewey and ‘educational engineering’, Biesta makes another misstep, which seems to me to further undermine his qualifications as a *savant* to be drawn upon, uncritically, in discussions about learning and technology. He raises the question of ‘whether the kind of engineering activities we need to build bridges are the same as the kind of engineering activities that we need to “build” human beings’ and he dismisses Dewey’s argument by denying that they are the same (2009b: 15). Of course they are not the same. But what Biesta misses – which Dewey would have spotted in a flash – is the difference between

engineering a learning environment and engineering a human being. Biesta misses what Andy Clark observes as a fundamental quality of our species:

We do not just self-engineer better worlds to think in. We self-engineer ourselves to think and perform better in the worlds we find ourselves in. We self-engineer worlds in which to build better worlds to think in. We build better tools to think with and use these very tools to discover still better tools to think with. We tune the way we use these tools by building educational practices to train ourselves to use our best cognitive tools better. We even tune the way we tune the way we use our best cognitive tools by devising environments that help build better environments for educating ourselves in the use of our own cognitive tools (e.g. environments geared toward teacher education and training). Our mature mental routines are not merely self-engineered: they are massively, overwhelming, almost unimaginably self-engineered. (Clark 2011: 59-60)

To be clear: part of Biesta's response to 'learnification' arose from his concerns about the pandemic of standardised testing in school systems – as evidenced in PISA and in the kinds of policy documents examined by Haugsbakk and Nordkvelle (2007). The othering term 'learnification' is now being used within self-styled critical writing in higher education and educational technology to marginalise knowledge about learning: a trend that runs much more widely than the confines of this book, and which I see as dangerous.

### **Educational Design and Analysis as Situated Activities, And the Creation of Design Knowledge**

Raewyn Connell's inspirational book on *The Good University* (Connell 2019) gains great strength from her insistence on grounding our understanding of universities in the actual work accomplished collectively by real people. Universities are workplaces: research and teaching are forms of work. Teaching is a *composite* labour process, in which episodes of 'face-to-face' or 'live, interactive' teaching and learning are interspersed with many other activities, including preparation, design, reflection, administration, and so on. As Sonia Bussey (2021 this book) and Connell both note, teaching is also a *collective* accomplishment.

The public image may be a solo lecture by a star performer. The everyday reality is a team of technicians, administrative staff, tutors and lecturers moving in a ballet in which that lecture is only a passing moment. The know-how of *all* these workers, their day-to-day coordination, and their capacity to sustain the coordination over months and years, are what really make up mainstream university teaching. (Connell 2019: 48-49)

Over the last decade or so, I have been particularly interested in the 'designerly' aspects of university teachers' work and have helped carry out a number of studies of educational design activities in which university teachers have collaborated with educational designers, developers and/or technologists to (re-)design courses, curricula and learning spaces (see e.g. Goodyear 2015, 2020; Carvalho et al. 2019; Kali et al. 2011a, b). Within this body of research, I see educational design, or design for learning, as having two sets of relations with theories of activity as situated (Suchman 1987, 2007). The first set of relations frames students' activity as situated: socially, physically and epistemically (Goodyear, Carvalho and Yeoman 2021; Lave and Wenger 1991; Sawyer and Greeno 2009; Yeoman and Wilson 2019). The second set of relations frames the educational design activity itself as situated – what teachers and teaching teams (can) do during a design activity is influenced, in subtle and powerful ways, by the social, physical and epistemic constraints and affordances of the situation in which they are doing that work (Carvalho et al. 2019; Goodyear and Dimitriadis 2013). Simonsen et al. (2014) and

Costanza-Chock (2020) make similar arguments about design, in general, as a situated activity in which specific configurations of place, tools and people can have profound effects on process and outcomes, access and equity.

When we acknowledge that course, curriculum, technology, learning space and other design decisions are shaped by the circumstances in which they unfold and are made, we can sharpen a number of questions raised in chapters of this book.

First, there is the point that the interests, expertise and situations of a variety of actors - distinct but inter-related sets of participants and stakeholders – shape educational design work and its outcomes. [As Tim Fawns, Michael Gallagher and Siân Bayne (2021, this book) point out, there can be significant tensions between, as well as inherent limitations to, top-down and bottom-up initiatives within universities. To these I might add ‘middle out’ – Trowler et al. (2003).] Top-level managers, deans, course teams, solo academics and students (themselves many and varied) are differently placed. This has implications for how they participate in educational design (understood comprehensively), and for the outcomes of their participation. An important corollary for those of us who are thinking about what these groups of actors can learn from our research and writing is that their situations and capacities create differences in what counts as actionable knowledge and knowledgeable action (Goodyear, Ellis and Marmot 2018; Ellis and Goodyear 2019). For example, top-level managers are better placed to act on clear-cut spending decisions than on lending their endorsement or support, whatever that means, to fuzzily-defined pedagogical innovations. (Vice chancellors showed little or no interest in educational technology until they found themselves facing decisions about which Learning Management System to buy. Few were concerned with online education until decisions had to be made about which MOOC platform provider to deal with. Few deans were interested in collaborative inquiry-based learning, until deans of Medicine started buying into PBL.)

Recognising this positioning is part of how we might diagnose the problem recently lamented by Thompson and Lodge (2020) - written against the background of the Covid-19 epidemic and the shift to emergency remote teaching.

Expertise and evidence related to the effective use of educational technologies in higher education do not hold an esteemed place amongst those who make decisions, and the continued decline in funding for research on innovation in higher education reflects this. In 2020 we have observed a fundamental communication breakdown in higher education technology research. Neither the teachers nor the policymakers appear to have used research in educational technology. (Thompson and Lodge 2020: 4)

Secondly, our corpus of research into the actual work of educational design in higher education highlights the yawning gulf between normative accounts of how design *ought* to be done (the stuff of instructional design textbooks, for example) and the messy contingencies – I might even say perverse and self-sabotaging arrangements – of real world practices. Educational design, situated in the real world of contemporary Australian higher education, can look dangerously compromised by organisational politics, resource constraints and incompatible distributions of knowledge and power. For example, we have seen:

- Course redesign meetings in which it becomes clear that one member of the team will actually do all of the design decision-making, between meetings.
- Course redesign processes that have been carefully planned and scheduled to take several weeks, in which most or all of the key design decisions are taken rapidly within the span of a single meeting.
- Meetings in which members of the design team announce that they are about to be made redundant.

- Design activities in which it suddenly becomes clear that expected student numbers have doubled, teaching hours have been halved, or that specialised teaching spaces are no longer available.

I suspect such occurrences are not rare. Experienced educational designers shrug them off, and mutter about institutional politics. But like Thompson and Lodge, and several of the authors in this book, I feel obliged to press the case and ask about relations between knowledge and action in educational work of this kind. If we take seriously the arguments about design – and other educational work – as situated, then we also need to think seriously about *time*. University teachers work to unforgiving time-cycles, with limited information, limited room for manoeuvre and a professional obligation to act. If knowledge that is potentially useful in design work is not available at the point of need, it is not actionable, and the action will be less knowledgeable than it might have been. Moreover, ways of talking about time are tools through which power can be exercised. Deans and other leaders skilled in risk-management and efficiency-maximising can mobilise discourses of time to sideline evidence and critique. ‘Teaching staff are already doing too much. There’s no time for them to learn new tricks.’ ‘Now is not the time for complicated ideas.’ Working on a much larger stage, Wendy Brown puts it like this:

Critical theory is essential in dark times not for the sake of sustaining utopian hopes, making flamboyant interventions, or staging irreverent protests, but rather to *contest the very senses of time invoked to declare critique untimely*. If the charge of untimeliness inevitably also fixes time, then disrupting this fixity is crucial to keeping the times from closing in on us. It is a way of reclaiming the present from the conservative hold on it that is borne by the charge of untimeliness. (Brown 2005: 4) (emphasis added)

Turning now from time to method: Tim Fawns and Christine Sinclair (2021, this book) offer ethnographically-inspired ‘thick description’ as a better way of gathering useful information on which to base improvements to courses: better than the standard institutional tools of student surveys, satisfaction measures, etc. I’m persuaded by the argument that a proper understanding of the complex meshworks that constitute online postgraduate programmes needs the kind of close observation and interaction with participants that ethnographically-inspired approaches can provide (see, e.g., Goodyear, Carvalho and Yeoman 2021; Yeoman 2015), I also think that research and practice in online postgraduate education have much to learn from anthropological and ethnographic theory and methods (Ingold 2000, 2011, 2017; Gunn et al. 2013; Pink et al. 2016). My one doubt about the adequacy of ‘thick description’ concerns the actionability of the knowledge produced, for the specific purposes of course redesign and enhancement purposes.

The strength of evaluation research depends on the perspicacity of its view of explanation (Pawson and Tilley 1997: 219).

My question is this: can the thick description be relied upon to *resolve disagreements* within a course team about what should be changed, and what is likely to happen as a consequence of such a change? In other words, does it provide an account of how the course functions – the ecology or architecture of the course, if you like – that can support (situated, local) explanations and predictions, or at least, collective imaginings? (Can ecologists and architects get by with thick descriptions?)

Finally, I want to pick up a point made by Kyungmee Lee (2021, this book), about auto-ethnography as a pedagogical device – to develop the idea, echoes of which can also be found

in the students' accounts in her chapter, that rich personal narratives from students can be an invaluable aid to course quality enhancement (and assurance, for that matter). Especially with mature, busy, postgraduate students, it seems to me, sharing ideas about how a course and its components function the way they do (and why) can be pedagogically useful, in immediate terms, and also useful in improving a course for future cohorts. As Lee cautions, it is far from straightforward to set up situations in which new students will write accounts of themselves that come from a vulnerable, authentic self (see also Veen 2021). As Lee puts it, those early accounts can emanate 'a nervous, heavy but fast-spreading air of competition and intimidation' (2021, this book). But as she also demonstrates, the building of trusting relationships, over time, can help transcend this early recourse to self-protection. And open discussion of needs and experiences, designs and their logic, is one of the best ways to learn how to improve a course.

### **Sharpening Our Sense of The Critical, And Moving Towards the Post-Critical**

In this last main section, I want to air some suspicions that have been growing in my mind, as I read self-styled critical writing in some of my main fields of interest: educational technology (including online education) and innovation in university teaching and learning. In parts of this literature, it is depressingly fashionable to be freely critical of the work of others: framing other educators as politically naïve, simple-minded dupes or immoral opportunists. I don't think the authors of chapters in this book have been swept away in the same fashion, but some of the same suspicions were activated when I was thinking about some of the chapters in the present collection. The suspicions are still inchoate, but I will try to pin them down a bit, as puzzling questions, connotations and non-sequiturs littering critical commentary.

- Why is sociological explanation and theory seen as progressive? Are sociologists the only people trained in the use of a moral compass?
- Why are psychological framings of educational activities and phenomena seen as embodying the worst of enlightenment science? Is psychology necessarily a tool of oppression?

I think these bother me particularly because I find the meeting ground of psychology, cognitive science, epistemic practice theory and science and technology studies (STS) a particularly fruitful place in which to reconsider educational dilemmas.

And then I have better-formed questions, like:

- What is 'solutionism' and why is it a bad thing?
- What does 'instrumental' actually mean, and why is it (always) a bad thing?

And I am uneasy, because I want to use the insights I gain from research on the meeting ground of psychology, cognitive science, epistemic practice theory and STS to inform my analysis of how educational programs, courses, ecologies, environments (etc) actually work, with a view to proposing better ways of doing things.

A related doubt that began to take shape and trouble me as I read my way into the chapters can be expressed as follows. Several of the authors talk about using one or more theoretical lenses – critical, postdigital, poststructuralist, posthumanist, feminist, socio-material – to gain insights into their experiences of teaching online courses. In many of these examples, what is seen through the lens(es) is neither new nor surprising. Yes, we live in a capitalist world. People are exploited: particularly those people who start out from positions of disadvantage. Labour is rarely, if ever, properly rewarded. Institutions and their operations often reproduce disadvantage and propagate value systems and accounts of the world and its workings that protect the interests of the already rich and powerful. So, I have to ask: do the authors' insights arise from close study of the course(s) they are teaching, aided by looking through such-and-such a theoretical lens, or do the insights arise from the existing literature,

such that the course experiences themselves serve primarily to provide illustrative examples? And if the latter, what can the rest of us learn that is new?

To be clear, I am neither condoning nor accepting the current state of the world. I am posing a question about the intellectual work being done and about the potential this knowledge-making activity has for equipping us to do things differently. In particular, I long to hear more about what the people engaged in these courses can now do to improve them, where ‘improve’ is understood as embodying the radical, emancipatory, empowering values and capabilities that suffuse the theoretical resources on which the authors are drawing. In my own practice as a teacher-researcher, such improvements depend upon understanding the specifics of how a course functions, what changes are both desirable and possible, and what outcomes might reasonably be anticipated.

This invites a supplementary question, which arises from a concern I have about the conflation – one might sometimes say the confabulation – of theoretical positions, such as a perspective drawn from work on socio-materiality, with a critical disposition. One can use the epistemic tools provided by Orlikowski or Latour without saying a word about neo-liberalism, the patriarchy, colonialism or surveillance. One can invoke socio-materialism, slide quickly sideways into a critique of platform capitalism, and have nothing new or sharp to say – because one has not actually *used* the espoused epistemic toolset.

On one view, a postdigital mindset makes this problem harder. I have worked with computer technology – writing programs, analysing data, building networks – since the 1970s and it is *decades* since I became weary of educators’ othering of commonplace technologies. I’ll smile benignly at anyone who says ‘chill – the digital is everywhere now’. And yet ... one cannot look clearly at the world through a socio-material lens without acknowledging that the material qualities of material things can make a difference to how they are used and understood. It’s not just that matter matters (Barad 2003, 2007) but materials matter (Ingold 2007).

... the ever-growing literature in anthropology and archaeology that deals explicitly with the subjects of *materiality* and *material culture* seems to have hardly anything to say about *materials*. ... the stuff that things are made of ... Their engagements are not with the tangible stuff of craftsmen and manufacturers but with the abstract ruminations of philosophers and theorists. To understand materiality, it seems, we need to get as far away from materials as possible. (Ingold 2007: 1-2).

Schatzki takes a similar view:

Social thought has had an unsteady relationship to the material world. ... although some recent social theory has attended to materiality, it still regularly underestimates the contributions made to social affairs by material entities, the material properties of things, and the processes that happen to these entities by virtue of these properties... (Schatzki 2019: 51)

I fear the same might be said about the growing literature that invokes socio-materiality in education and even educational technology. If we are serious about situativity, or about the structures on which agency depends, then we cannot speak only, or even preferentially, about the social. If matter matters, then the peculiar affordances of specific configurations of materials for uniquely embodied and capable human actors need to be understood. This is so, whether we are considering spaces and places, material and digital-material tools or networks and ecologies of devices. If we cannot speak carefully and precisely about these relations, where is our science?

At the same time, I think we need a more ambitious concept of ‘the critical’ in research on and in innovations in higher education. Almost 20 years have passed since Latour talked about critique ‘running out of steam’ (Latour 2004). Yet in the ‘EdTech’ literature we see a steadily growing stream of papers by researchers who identify as ‘hypervigilant’ – ready to see every educational experiment as the work of dupes and devils. One picks up these papers with a strange sense of anticipation – the plot and the ending are always the same; only the choice of target varies.

Generals have always been accused of being on the ready one war late— especially French generals, especially these days. Would it be so surprising, after all, if intellectuals were also one war late, one critique late—especially French intellectuals, especially now? ... history changes quickly and ... there is no greater intellectual crime than to address with the equipment of an older period the challenges of the present one. (Latour 2004: 225-6, 231)

Among Latour’s arguments is an observation that when philosophers are thinking about the nature of the world, they habitually use, as exemplary ‘objects to think with’, simple and familiar things – a mug or a pebble.

... their objects are never complicated enough; more precisely, they are never simultaneously *made* through a complex history and new, real, and *interesting* participants in the universe. Philosophy never deals with the sort of beings we in science studies have dealt with. (Latour 2004: 234)

In educational technology, online education (etc) we need to treat this complicatedness seriously – carefully tracing relations, following the materials (as in good STS), and avoiding the temptation of that easy jump to critique as debunking.

The critic is not the one who debunks, but the one who assembles. The critic is not the one who lifts the rugs from under the feet of the naïve believers, but the one who offers the participants arenas in which to gather. The critic is not the one who alternates haphazardly between antifetishism and positivism like the drunk iconoclast drawn by Goya, but the one for whom, if something is constructed, then it means it is fragile and thus in great need of care and caution. (Latour 2004: 246)

The challenge in educational technology, including online education, as I then see it, is for us to go beyond (or to sidestep) debunking and to do more than utter a superficial acknowledgement of socio-(digital)-materiality. This will need sharper analytical tools and a commitment to mastery of methods, not just a fresh disposition.

We need better understandings of how the complicated things that we have reason to care about actually work (hang together, associate, etc.); a better understanding of their fragility and how to care for them, and make them stronger. We need to understand how to do this collectively – as members of intersecting networks drawing together around matters of concern – recognising that insights have to be worked for, and that care involves careful thinking and discussion, agreements about lines of joint action, and so on.

### **Postscript: Critical After Thoughts, And Going Meta-**

With apologies to Yann Martel, I want to say that: to choose the critical as a philosophy of life is akin to choosing a pulpit as a means of transport.

What then do we make of advocacy for a ‘critical postdigital perspective’ [editors’ introduction to this volume (Fawns et al. 2021); Rachel Buchanan (2021, this book) and also Fawns (2019); Sinclair and Hayes (2019)]. As Derek Jones observes (2021, this book), ‘post-’ is an awkward term. It is useful in that it simultaneously queries the nature and asserts the continuing importance of the word and idea to which it is prefixed. Some of the difficulties created by its use stem from the locational fixity of its dominant primary connotation. The Latin *post-* is tied to ideas of *behind* or *after*, whereas the Greek *meta-* floats more freely: *after* and *beyond* admit transcendence, reflection on and from higher levels, reflexivity and ‘going meta-’. But at least for now, we too are tied to ‘post-’ and need to make the best of it.

As I understand it, the phrase ‘critical postdigital perspective’ encourages us to do two things: (1) question more carefully the nature of claims about ‘the digital’; be wary of the traps that are set when the digital and material (or non-digital) are set up as two exclusive and exhaustive categories; embrace the knowledge that the digital is here to stay, (2) think carefully about – and inquire fearlessly into – the sets of arrangements that constitute each instance of online postgraduate education; look out for whose interests are being served; search for the outer boundaries of what can and should be changed in the near future.

While the phrase enjoins us to look searchingly at our own work (and the works of the rich and powerful) it doesn’t give us a licence to trash the efforts of our peers.

It’s often the case that we need subtle ideas, tools and methods to understand how the world works. Sometimes things are simple. Some writers – not in this collection – write as if the world is already understood, or at least they simplify parts of the world’s processes – those in which they are particularly interested – to the point where one has to wonder whether they lost their sense of wonder.

Understanding the world is one thing. As teachers, we are always already involved in changing the world, and our change-making is distributed: it works in and through other people, and through the reconfiguration of places to make them more likely sites for productive learning and convivial action. In online teaching for postgraduate students, we configure and reconfigure many elements and agents – epistemic, social, digital, material and hybrid. We work with students to bring things into temporary alignments that suit a particular task, activity and set of valued outcomes. In concert with them, we create temporary meshworks that enable what needs to be done now, and which act as modifiable patterns for later work.

Understanding these arrangements, places, configurations, meshworks, assemblages and patterns needs subtle ideas, tools and methods. As online teachers, working collectively, we depend upon reliable, shared (if partial) understandings of the functioning of what we and our students create, if we are to act rationally: connecting valued aims with appropriate means, deliberating together over matters of fact and matters of concern, knowing that nothing is certain or determined, but making decisions and moving ahead with sharp eyes and a sense of purpose. [Ingold (2011: 211) alludes to this as an ‘ability to find the grain of the world’s becoming’.]

The main concern I’m trying to articulate here, and it reflects an apprehension that has been growing in me, over the last few years, as I have seen younger writers take a critical turn, is that we lose our sense of wonder and of possibility. Standing in a pulpit, debunking the efforts of well-intentioned peers, is sad work and it’s never ending. It seems there will always be room for another preacher, setting themselves up in another pulpit, positioned perfectly to say ‘I am holier than thou!’

Taking up the ideas, tools and methods needed to make sense of the world, and to co-configure ways to work with others to understand and change it – that’s the start of things, not the last step you take before surrendering to cynicism.

Which brings me to another post- word: *post-critical*. In my experience, the greater visibility and persistence of the things we create and use in online teaching makes it a productive site for solidarity around issues of inclusion and equity. As Sonia Bussey puts it:

Done well, online teaching provides a showcase for highlighting the contribution made by all teachers, irrespective of their additional needs, and in turn, normalising the culture of accessibility that universities seek to promote. However, to get to that point, teachers need to feel safe and supported to make those needs visible, to colleagues, the university, and the students. As professionals, we all have the individual responsibility to educate ourselves about these issues and play our role as allies in that process. (Bussey 2021, this book)

So if we have to stay with Latin, rather than Greek, I offer post-critical pedagogy as a better mode of transport – indeed a transport of delight.

Instead of hierarchical relations between a master of critique and an ignorant student, education is conceived as an act of giving, which creates common ground between the generations. Rather than ceaselessly calling for a brave new world in an imaginary, unattainable future, post-critical education calls for renewing the existing world based on what is good and worthy in it. Prevailing injustice is not denied, and education by no means excludes politics: it simply refuses to force predetermined ‘critical’ patterns on reality, allowing the new generation to be political in its own way (Snir 2021: 202).

Once again, I thank the editors and authors of this thought-provoking volume for the opportunity to pursue some implications of ideas they are exploring. So much to do! So little time!

## References

- Aitken, G., & Hayes, S. (2021). Online postgraduate teaching: re-discovering human agency. In T. Fawns, G. Aitken, & D. Jones (Eds.), *Online Postgraduate Education in a Postdigital World: Beyond Technology*. Cham: Springer.
- Ashwin, P. (2020). *Transforming university education: a manifesto*. London: Bloomsbury.
- Barad, K. (2003). Posthumanist performativity: toward an understanding of how matter comes to matter. *Signs*, 28(3), 801-831. <https://doi.org/10.1086/345321>.
- Barad, K. (2007). *Meeting the universe halfway: quantum physics and the entanglement of matter and meaning*. Durham NC: Duke University Press.
- Barnett, R. (2018). *The ecological university: a feasible utopia*. London: Routledge.
- Biesta, G. (2009a). 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), 33-46. <https://doi.org/10.1007/s11092-008-9064-9>.
- Biesta, G. (2009b). Building bridges or building people? On the role of engineering in education. *Journal of Curriculum Studies*, 41(1), 13-16. <https://doi.org/10.1080/00220270802189400>.
- Boder, A. (1992). The process of knowledge reification in human-human interaction. *Journal of Computer Assisted Learning*, 8(3), 177-185. <https://doi.org/10.1111/j.1365-2729.1992.tb00402.x>.
- Boyd, S. 2021. Taking Time to get Messy Outside the Online Classroom. In T. Fawns, G.

- Aitken, & D. Jones (Eds.), *Online Postgraduate Education in a Postdigital World: Beyond Technology*. Cham: Springer.
- Brown, W. (2005). *Edgework: critical essays on knowledge and politics*. Princeton NJ: Princeton University Press.
- Buchanan, R. (2021). Networked Professional Learning in the Postdigital Age: Asking Critical Questions of Postgraduate Education. In T. Fawns, G. Aitken, & D. Jones (Eds.), *Online Postgraduate Education in a Postdigital World: Beyond Technology*. Cham: Springer.
- Bussey, S. (2021). Inclusivity in Online Postgraduate Teaching. In T. Fawns, G. Aitken, & D. Jones (Eds.), *Online Postgraduate Education in a Postdigital World: Beyond Technology*. Cham: Springer.
- Carvalho, L., Martinez-Maldonado, R., & Goodyear, P. (2019). Instrumental genesis in the design studio. *International Journal of Computer Supported Collaborative Learning*, 14, 77-107. <https://doi.org/10.1007/s11412-019-09294-2>.
- Clark, A. (2011). *Supersizing the mind: embodiment, action, and cognitive extension*. Oxford: Oxford University Press.
- Collini, S. (2012). *What are universities for?* London: Penguin.
- Connell, R. (2019). *The good university: What universities actually do and why it's time for radical change*. Clayton, Victoria: Monash University Publishing.
- Costanza-Chock, S. (2020). *Design justice: Community-led practices to build the worlds we need*. Cambridge, MA: MIT Press.
- Croucher, G., & Waghorne, J. (2020). *Australian universities: A history of common cause*. Sydney: NewSouth Publishing.
- Dohn, N. B., Jandrić, P., Ryberg, T., & De Laat, M. (Eds.). (2020). *Mobility, data and learner agency in networked learning*. Cham: Springer.
- Ellis, R., & Goodyear, P. (2019). *The education ecology of universities: Integrating learning, strategy and the academy*. Abingdon: Routledge.
- Fawns, T. (2019). Postdigital education in design and practice. *Postdigital Science and Education*, 1(1), 132-145. <https://doi.org/10.1007/s42438-018-0021-8>.
- Fawns, T., & Sinclair, C. (2021). Towards ecological evaluation of online courses: aiming for thick description. In T. Fawns, G. Aitken, & D. Jones (Eds.), *Online Postgraduate Education in a Postdigital World: Beyond Technology*. Cham: Springer.
- Fawns, T., Gallagher, M., & Bayne, S. (2021). Institutional contexts in supporting quality online postgraduate education: lessons learned from two initiatives at the University of Edinburgh. In T. Fawns, G. Aitken, & D. Jones (Eds.), *Online Postgraduate Education in a Postdigital World: Beyond Technology*. Cham: Springer.
- Goodyear, P. (1995). Situated action and distributed knowledge: a JITOL perspective on electronic performance support systems. *Educational and Training Technology International*, 32(1), 45-55. <https://doi.org/10.1080/1355800950320107>.
- Goodyear, P. (1996). Asynchronous peer interaction in distance education: the evolution of goals, practices and technology. *Training Research Journal*, 1, 71-102.
- Goodyear, P. (2005). The emergence of a networked learning community: lessons learned from research and practice. In G. Kearsley (Ed.), *Online learning: personal reflections on the transformation of education* (pp. 115-129). Englewood Cliffs NJ: Educational Technology Publications.
- Goodyear, P. (2014). Productive learning networks: The evolution of research and practice. In L. Carvalho & P. Goodyear (Eds.), *The architecture of productive learning networks* (pp. 23-47). New York: Routledge.
- Goodyear, P. (2015). Teaching as design. *HERDSA Review of Higher Education*, 2, 27-50.

- Goodyear, P. (2020). Design and co-configuration for hybrid learning: Theorising the practices of learning space design. *British Journal of Educational Technology*, 51(4), 1045–1060. <https://doi.org/10.1111/bjet.12925>.
- Goodyear, P., & Dimitriadis, Y. (2013). *In medias res: reframing design for learning*. *Research in Learning Technology*, 21. <http://dx.doi.org/10.3402/rlt.v21i0.19909>.
- Goodyear, P., & Steeples, C. (1992). IT-based open learning: tasks and tools. *Journal of Computer Assisted Learning*, 8, 163-176. <https://doi.org/10.1111/j.1365-2729.1992.tb00401.x>.
- Goodyear, P., & Steeples, C. (1993). Computer-mediated communication in the professional development of workers in the advanced learning technologies industry. In J. Eccleston, B. Barta, & R. Hambusch (Eds.), *The computer-mediated education of information technology professionals and advanced end-users* (pp. 239-247). Amsterdam: Elsevier.
- Goodyear, P., & Steeples, C. (1999). Asynchronous multimedia conferencing in continuing professional development: Issues in the representation of practice through user-created videoclips. *Distance Education*, 20(1), 31-48. <https://doi.org/10.1080/0158791990200104>.
- Goodyear, P., Carvalho, L., & Yeoman, P. (2021). Activity-Centred Analysis and Design (ACAD): core purposes, distinctive qualities and current developments. *Educational Technology Research and Development*. <https://doi.org/10.1007/s11423-020-09926-7>.
- Goodyear, P., Ellis, R., & Marmot, A. (2018). Learning spaces research: framing actionable knowledge. In R. Ellis & P. Goodyear (Eds.), *Spaces of teaching and learning: integrating perspectives on research and practice* (pp. 221-238). Singapore: Springer Nature.
- Gunn, W., Otto, T., & Smith, R. (Eds.). (2013). *Design anthropology: Theory and practice*. London: Bloomsbury Publishing.
- Haggett, P. (1965). *Locational analysis in human geography*. London: Edward Arnold.
- Harasim, L. (Ed.) (1990). *Online education: Perspectives on a new environment*. New York: Praeger.
- Hartley, J., Dickinson, J., Noakes, J., & Tagg, A. (1994). The comparative evaluation of computer conferencing with other methods of teaching and learning: Final Report to the Learning Methods Branch of the Department of Employment. London: Birkbeck College, University of London.
- Haugsbakk, G., & Nordkvelle, Y. (2007). The rhetoric of ICT and the new language of learning: A critical analysis of the use of ICT in the curricular field. *European Educational Research Journal*, 6(1), 1-12. <https://doi.org/10.2304/eeerj.2007.6.1.1>.
- Hiltz, S. R., & Turoff, M. (1978). *The network nation: Human communication by computer*. Reading MA: Addison Wesley.
- Hodgson, V., & McConnell, D. (1992). IT-based open learning: a case study in management learning. *Journal of Computer Assisted Learning*, 8(3), 136-150. <https://doi.org/10.1111/j.1365-2729.1992.tb00399.x>.
- Hounsell, D. (2021). Feedback in Postgraduate Online Learning: Perspectives and Practices. In T. Fawns, G. Aitken, & D. Jones (Eds.), *Online Postgraduate Education in a Postdigital World: Beyond Technology*. Cham: Springer.
- Ingold, T. (2000). *The perception of the environment: Essays in livelihood, dwelling and skill*. Abingdon: Routledge.
- Ingold, T. (2007). Materials against materiality. *Archaeological dialogues*, 14(1), 1-16. <https://doi.org/10.1017/s1380203807002127>.
- Ingold, T. (2011). *Being alive: essays on movement, knowledge and description*. Abingdon: Routledge.
- Ingold, T. (2017). *Anthropology and/as education*. New York: Routledge.

- Jones, D. (2021). Postgraduate Education in A Postcurriculum Context. In T. Fawns, G. Aitken, & D. Jones (Eds.), *Online Postgraduate Education in a Postdigital World: Beyond Technology*. Cham: Springer.
- Jones, C., Asensio, M., & Goodyear, P. (2000). Networked learning in higher education: practitioners' perspectives. *Journal of the Association for Learning Technology*, 8(2), 18-28. <https://doi.org/10.3402/rlt.v8i2.11988>.
- Kali, Y., Goodyear, P., & Markauskaite, L. (2011a). Researching design practices and design cognition: contexts, concretisation and pedagogical knowledge-in-pieces. *Learning, Media & Technology*, 36(2), 129-149. <https://doi.org/10.1080/17439884.2011.553621>.
- Kali, Y., Markauskaite, L., Goodyear, P., & Ward, M.-H. (2011b). Bridging multiple expertise in collaborative design for technology-enhanced learning. Paper presented at the Computer Supported Collaborative Learning Conference (CSCL2011), Hong Kong.
- Kiley, M., & Cumming, J. (2015). Enhanced learning pathways and support for coursework master's students: Challenges and opportunities. *Higher Education Research & Development*, 34(1), 105-116. <https://doi.org/10.1080/07294360.2014.934335>.
- Knight, P. T. (1997b). Growth, standards and quality: The case of coursework Master's degrees. *Quality in Higher Education*, 3(3), 213-224. <https://doi.org/10.1080/1353832970030302>.
- Knight, P. T. (Ed.) (1997a). *Masterclass: Teaching, learning and curriculum at master's level*. London: Cassell.
- Latour, B. (2004). Why has critique run out of steam? From matters of fact to matters of concern. *Critical Inquiry*, 30, 225-248. <https://doi.org/10.2307/1344358>.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press.
- Lee, K. (2021). Embracing Authenticity and Vulnerability in Online PhD Studies: The Self and a Community. In T. Fawns, G. Aitken, & D. Jones (Eds.), *Online Postgraduate Education in a Postdigital World: Beyond Technology*. Cham: Springer.
- Lewis, R., Goodyear, P., & Boder, A. (1992). *Just in Time Open Learning (NL/1/92)*. Archamps, France: Neuropelab.
- Mager, R. (1988). *Making instruction work*. Belmont CA: Lake Books.
- Marley, C., Faye, A., Hurst, E., Moeller, J., & Pinkerton, A. (2021). Moving Beyond 'You Said, We Did': Extending an Ethic of Hospitality to The Student Feedback Process. In T. Fawns, G. Aitken, & D. Jones (Eds.), *Online Postgraduate Education in a Postdigital World: Beyond Technology*. Cham: Springer.
- Mason, R., & Kaye, A. (Eds.). (1989). *Mindweave: Communication, computers and distance education*. Oxford: Pergamon.
- McConnell, D., Hodgson, V., & Dirckinck-Holmfeld, L. (2012). Networked learning: a brief history and new trends. In L. Dirckinck-Holmfeld, V. Hodgson, & D. McConnell (Eds.), *Exploring the theory, pedagogy and practice of networked learning* (pp. 3-24). New York: Springer.
- McInnis, C., James, R., & Morris, A. (1995). *The masters degree by coursework: Growth, diversity and quality assurance*. Canberra: DETYA.
- Networked Learning Editorial Collective et al. (2021). Networked Learning in 2021: A Community Definition. *Postdigital Science and Education*, 3(2), 326-369. <https://doi.org/10.1007/s42438-021-00222-y>.
- Networked Learning Editorial Collective. (2021). Networked Learning: Inviting Redefinition. *Postdigital Science and Education*, 3(2), 312-325. <https://doi.org/10.1007/s42438-020-00167-8>.

- Nieminen, J. H., Tai, J., Boud, D., & Henderson, M. (2021). Student agency in feedback: Beyond the individual. *Assessment & Evaluation in Higher Education*. <https://doi.org/10.1080/02602938.2021.1887080>.
- Pawson, R., & Tilley, N. (1997). *Realistic evaluation*. London: Sage.
- Pink, S., Ardèvol, E., & Lanzeni, D. (Eds.). (2016). *Digital materialities: Design and anthropology*. London: Bloomsbury.
- Sannino, A. (2020). Transformative agency as warping: How collectives accomplish change amidst uncertainty. *Pedagogy, Culture & Society*. <https://doi.org/10.1080/14681366.2020.1805493>.
- Sawyer, K., & Greeno, J. (2009). Situativity and learning. In P. Robbins & M. Aydede (Eds.), *The Cambridge handbook of situated cognition* (pp. 347-367). Cambridge: Cambridge University Press.
- Schatzki, T. (2019). *Social change in a material world*. Abingdon: Routledge.
- Simonsen, J., Svabo, C., Strandvad, S., Samson, K., Hertzum, M., & Hansen, O. (2014). *Situated design methods*. Cambridge MA: MIT Press.
- Sinclair, C., & Hayes, S. (2019). Between the Post and the Com-Post: Examining the Postdigital 'Work' of a Prefix. *Postdigital Science and Education*, 1(1), 119-131. <https://doi.org/10.1007/s42438-018-0017-4>.
- Snir, I. (2021). Walter Benjamin in the age of post-critical pedagogy. *Studies in Philosophy and Education*, 40(2), 201-217. <https://doi.org/10.1007/s11217-020-09749-2>.
- Steeple, C., Goodyear, P., & Mellor, H. (1994). Flexible learning in higher education: The use of computer-mediated communications. *Computers & Education*, 22, 83-90. <https://doi.org/10.1016/b978-0-08-041945-9.50018-4>.
- Steeple, C., Johnson, R., & Goodyear, P. (1992). The rationale and design of the MSc Information Technology and Learning course. In G. Holmes (Ed.), *Integrating learning technology into the curriculum* (pp. 13-17). Oxford: Computers in Teaching Initiative.
- Steeple, C., Unsworth, C., Bryson, M., Goodyear, P., Riding, P., Fowell, S., Levy, P & Duffy, C. (1996). Technological support for teaching and learning: computer-mediated communications in higher education (CMC in HE). *Computers & Education*, 26(1-3), 71-80. [https://doi.org/10.1016/0360-1315\(95\)00082-8](https://doi.org/10.1016/0360-1315(95)00082-8).
- Stone, C., Downing, J., & Dymont, J. (2021). Improving student retention and success within the context of complex lives and diverse circumstances. In T. Fawns, G. Aitken, & D. Jones (Eds.), *Online Postgraduate Education in a Postdigital World: Beyond Technology*. Cham: Springer.
- Suchman, L. (1987). *Plans and situated actions: The problem of human-machine communication*. Cambridge: Cambridge University Press.
- Suchman, L. (2007). *Human-machine reconfigurations: Plans and situated actions* (2nd ed.). Cambridge: Cambridge University Press.
- Thompson, K., & Lodge, J. (2020). 2020 vision: What happens next in education technology research in Australia (Editorial). *Australasian Journal of Educational Technology*, 36(4). <https://doi.org/10.14742/ajet.6593>.
- Trowler, P. (2020). *Accomplishing change in teaching and learning regimes: Higher education and the practice sensibility*. Oxford: Oxford University Press.
- Trowler, P., Saunders, M., & Knight, P. (2003). *Change thinking, change practices: A guide to change for heads of department, subject centres and others who work 'middle-out'*. York: LTSN.
- Veen, M. (2021). Wrestling with (in)authenticity. *Perspectives on Medical Education*. <https://doi.org/10.1007/s40037-021-00656-x>.
- Yeoman, P. (2015). Habits & habitats: An ethnography of learning entanglement. PhD thesis. University of Sydney, <http://hdl.handle.net/2123/13982>. Accessed 9 April 2021.

Yeoman, P., & Wilson, S. (2019). Designing for situated learning: Understanding the relations between material properties, designed form and emergent learning activity. *British Journal of Educational Technology*, 50(5), 2090-2108.  
<https://doi.org/10.1111/bjet.12856>.