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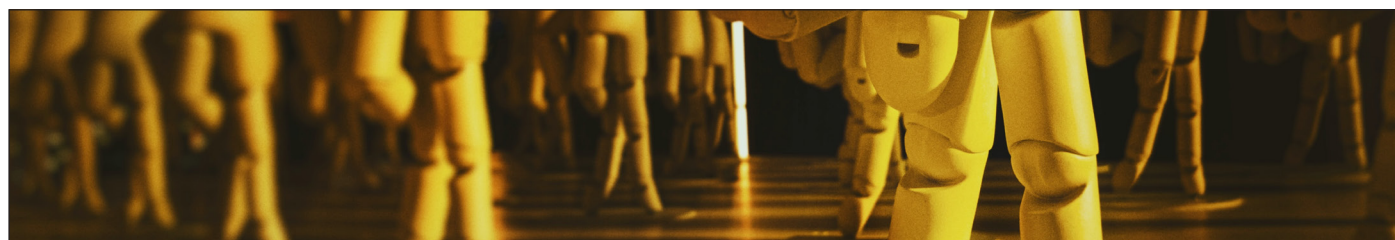
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Technology and educational ‘pivoting’ in the wake of the Covid-19 pandemic: A collected commentary

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1. Introduction—Brett Bligh & Kyungmee Lee

The present document presents 13 commentaries that address the broad topic of the special issue—*Technology and educational ‘pivoting’ in the wake of the Covid-19 pandemic*—and, in some cases, specific articles from the issue itself. Since the launch

of the journal in 2020, we have been explicit about our aspiration that *Studies in Technology Enhanced Learning* might serve as a vehicle for scholarly conversation (Bligh & Lee, 2020). The present "collected commentary" presents one such expression of that conversation, using a format, recently pioneered by journals like *Postdigital Science and Education*, which the present editors have recently found most useful (e.g., NLEC et al., 2021). We cannot claim to be the *first* to present such a collected commentary on this issue—we are certainly aware of the valuable contribution of Bozkurt et al. (2020)—but the format, which remains an uncommon one, does allow us to raise a number of points that are too often overlooked in the literature and to present disparate views on a number of common themes. Moreover, many of the themes raised here, such as the *ongoing* consequences of the pandemic 'pivot' for future developments, can benefit from being considered in a multi-voiced way and from the relatively rapid publication schedules that the present format allows.

We approached a number of people to contribute to this collective commentary: including those authors who contributed full articles to the special issue, the peer-reviewers for the articles submitted (including those that did not subsequently appear), and members of the editorial board. We asked respondents to provide a relatively concise statement on the topic of the special issue, and made the "in press" versions of the peer-reviewed articles available so that commentators could engage with them directly if they wished. Submissions were subject to editorial oversight, rather than peer review: with most authors, in practice, receiving some modest editorial comment on their initial submission, which they were required to respond to fairly quickly. The submission schedule for the commentary was around one calendar month, which, inevitably, provoked several apologies on grounds of prior commitment.

Thirteen commentaries from 14 authors are presented below. Our initial idea had been to thematise the submissions: separating the conceptual from the empirical, for example, or clustering together articles focussed on present practice or those emphasising future-oriented speculation. Yet, as it turns out, many commentaries map a trajectory (from past, through the present, and onwards to the future) in a way that makes such categorisation seem artificial. We have therefore opted, in what follows, for a simple alphabetical ordering based on authors' surnames.

A number of themes can certainly be discerned within the comments below, however. Recurrent issues include reclaiming a sense of history in our discussion (Bligh & Lee; Delia Sturgeon; Passey); differentiating ground-level

dilemmas from a sometimes vapid rhetoric (Bligh & Lee; Miles; Yu); reappraising educational sociality in light of harsh pandemic experiences (Crook; Lei); understanding the consequences of change for long-established practices (Crook; Miles; Saliba); examining moves to accommodate new modes of hybridised education (Cutajar; Lower; Marín; Munday; Saliba); exploring the pandemic 'pivot' as interlocking and multifaceted processes of change (Bligh & Lee; Moffitt; Passey); and maintaining a sense of trajectory and rejecting a simple 'pivot back' (Moffitt; Munday; Passey).

Each of these issues is, at the time of writing, radically underexplored in the literature and we hope that the contributions below will enliven the discussion in these directions.

2. Reclaiming a historical perspective on the pandemic 'pivot' – Brett Bligh and Kyungmee Lee

Men¹ make their own history, but they do not make it just as they please; they do not make it under circumstances chosen by themselves, but under circumstances directly encountered, given and transmitted from the past. The tradition of all the dead generations weighs like a nightmare on the brain of the living. And just when they seem engaged in revolutionising themselves and things, in creating something that has never yet existed, precisely in such periods of revolutionary crisis they anxiously conjure up the spirits of the past to their service and borrow from them names, battle-cries and costumes in order to present the new scene of world history in this time-honoured disguise and this borrowed language. (Marx, 1852/1978, pp. 103-104)

The circumstances of the recent 'pivot' in educational practice—in which, from the early months of 2020 onwards, attempts to stop the spread of the Covid-19 pandemic drove educational stakeholders across swathes of the world to move, at great speed, to 'socially distanced' forms of practice—might justifiably be regarded as those of a revolutionary crisis for many educational systems. Certainly, many long-established educational 'regimes' became an object of forms of challenge whose scale and severity are rarely seen. The period saw practices of teaching and learning disrupted, institutional channels of provision and support rapidly re-configured for new realities, and new relationships between stakeholders hastily forged; the latter ranging across a whole spectrum, from *ad hoc* friendships between

¹ Obviously, a contemporary commentator would have chosen an alternative like "people".

particular individuals to new agreements, of considerable scope and implication, between organisations. In terms of suddenly shifting directives and priorities, the exertion of new powers, and a pervading sense of uncertainty, the experience was reminiscent of an educational *coup d'état* for many educational stakeholders. Just as for the political coup described by Karl Marx in *The Eighteenth Brumaire of Louis Bonaparte*, quoted above, the needs of the hour were to “seem engaged in revolutionising themselves and things, in creating something that has never yet existed”.

Yet every crisis has its particular characteristics, and, in at least one key respect, Marx’s description of the cultural contours of revolutionary situations does not seem to hold for the Covid conjuncture—so long as we maintain a narrow focus on education. While “spirits of the past” were certainly conjured throughout societies as a whole (inevitably, in the UK context, this meant gestures towards the attenuated ‘official history’ of World War II), within educational systems and institutions the dominant vocabulary was one of exceptionalism. Indeed, as we explore further below, there seemed a conscious effort to *deny* links between the pandemic-era revolutionising of education and the “names, battle-cries and costumes” of the past.

Indeed, down to the present, the dominant discussion of education during the pandemic period typically positions the relevant pedagogical and technological change as an enforced break with past practice, on a temporary basis, circumscribed by technology provision. That analysis is prominently reinforced by advocating the use of a particular and specialised vocabulary to describe the situation. Even the common description of the response of educational systems to the Covid-19 pandemic as a ‘pivot’, for instance, carries a sense of “enforced and unexpected” change, in relation to which practitioners feel mainly a “sense of lack of control” (Salmon, 2020). Many writers, moreover, have suggested that the practices resulting from such change are sufficiently distinctive that established terms, with their historically accumulated definitions and nuances of meaning, should be purposefully avoided and replaced. For example, Hodges et al.’s (2020) influential contribution, published in *Educause Review* just as the pandemic had started to affect higher education in the USA, argues that the term *online learning* is an inappropriate description for Covid-19 pivot situations. Hodges et al. suggest that the term *emergency remote teaching* (ERT) should be used instead, for the following reasons:

In contrast to experiences that are planned from the beginning and designed to be online, emergency remote teaching (ERT) is a temporary shift of instructional

delivery to an alternate delivery mode due to crisis circumstances. It involves the use of fully remote teaching solutions for instruction or education that would otherwise be delivered face-to-face or as blended or hybrid courses and that will return to that format once the crisis or emergency has abated. The primary objective in these circumstances is not to re-create a robust educational ecosystem but rather to provide temporary access to instruction and instructional supports in a manner that is quick to set up and is reliably available during an emergency or crisis. When we understand ERT in this manner, we can start to divorce it from “online learning.” [...] Online courses created in this way should not be mistaken for long-term solutions but accepted as a temporary solution to an immediate problem. (np.)

Hodges et al.’s formulation, while influential, is not atypical; such acts of redefinition are common in the relevant literature. Bond, Bedenlier, Marín, & Händel’s (2021) recent review documents at least 71 different alternate terms used to name similar phenomena. In each case, they suggest, the “special feature” is that what is being described is “an unplanned practice, with no option than to use any kind of offline or online resources that may be at hand” (ibid., p. 1). Bozkurt et al.’s (2020) overview goes further in describing the entire situation, rather than merely the choice of resources, as enforced; suggesting that “the remarkable difference between emergency remote education and distance education is that the latter is an *option* while the former is an *obligation*” (Bozkurt et al., 2020, p. 2, emphases in original).

The dominant narrative, therefore, is framed in terms that downplay the intentions or aspirations of practitioners and students, portray technology choices as a matter of what is made available, and encourage readers to imagine a rapid rebound to previous practices as soon as reasonably practicable. The cumulative effect is to occlude history (including that subjective intentions and technological availability are themselves products of long trajectories) and compress the sense in which this phenomenon might carry ongoing implications into the future. Much empirical literature tracks a research agenda *predicated* on assumptions of situational exceptionalism, enforced courses of action, and temporary change, with attendant consequences in terms of a reduced scope of investigation. Typical points of focus, for example, address how those involved have ‘perceived’ their ‘experiences’ and the kinds of ‘training’ teaching staff ‘require’—with Hodges et al. (2020) calling for such work and Bond et al. (2021) confirming that these have indeed been the predominant forms of much subsequent scholarship. Where more ‘permanent’ changes to practice are occasionally discussed,

attention is most often directed towards those reservoirs of increased practitioner experience (Hodges et al., 2020) or better organisational readiness (Salmon, 2020) that are being generated—and which might be drawn on again in the event of future crises. Existing trends—that, for example, online and blended learning was already presenting challenges to the 'physical' provision of education even before the pandemic (e.g., Bligh, 2019)—either remain unacknowledged or are discussed as if newly emergent.

Our own conviction, in the first instance, is that such narratives are inadequate for describing the range of ongoing practice change happening in educational settings in the wake of the Covid-19 pandemic. Since the educational implications of the pandemic became obvious to us around February 2020, we have, with others, been tracing how institutional practices have been changing and developing in three specific higher education settings in the UK, South Korea, and China (PRC). That ongoing project has reinforced to us the importance of understanding local historical precedent, investigating how stakeholders actively confront and overcome problems, and tracing how different possibilities for change and development emerge and are contested in specific settings over time—all issues which are underemphasised in the literature.

Two articles have already been published from that wider project. Our first paper, based on student questionnaire responses, was written to challenge what we call the "prevailing pessimism" about university student experiences during the pandemic (Lee, Fanguy, Lu, & Bligh, 2021, p. 164). We document how students have "made an accurate and thoughtful assessment of the risk of face-to-face classes and the effort of their universities" (p. 168). Our analysis in that paper highlights that students evaluate their *ongoing* work with tutors and their own knowledge development in relatively positive terms, while lamenting *reduced* opportunities for peer collaboration and wider university socialisation (p. 166). That finding reinforces the importance of understanding stakeholders' actual objectives and priorities for university education when investigating their experience; objectives and priorities which have their own complex histories, acknowledged by research participants when discussing prior practices as points of comparison and setting experiences against a backdrop of expectations. Students also suggest that their educational experiences in this period helped them in unanticipated ways—examples include learning new technical and time management skills—while emphasising the central importance of tutors being "approachable" online (p. 167). This finding, which hints at how stakeholders actively respond to problems and change their practices (with varying degrees of success), reinforces

the continuing relevance of established concepts from research into online education (such as tutor 'presence'), thereby undermining the notion that we are exploring an utterly novel terrain. Moreover, we report a statistically significant correlation between how students perceive the quality of their university education *before* and *during* the pandemic (pp. 165-166). That finding demonstrates very directly the importance of accounting for historical precedent when examining pandemic-related teaching.

Our second paper, which focusses on university teachers' experiences, was written to examine how stakeholders actively confronted those dilemmas generated by institutional attempts to 'pivot' their teaching (Lee, Fanguy, Bligh, & Lu, 2022). Based on interviews with teaching staff at the research-intensive university KAIST (Korea Advanced Institute of Science and Technology), South Korea, and using activity theory as a theoretical framework, the article highlights how the actions of different teachers were heavily framed by how they were positioned within the institution's change strategy. Again, several themes arise that are relevant to the present commentary. KAIST's institutional response was conceived as extending and generalising an existing local change initiative which had previously, with considerable central support, helped some staff to incorporate into their courses both sophisticated educational technologies and a 'flipped learning' pedagogical model. Yet institutional attempts to position participants in that previous initiative as 'experts', and then to encourage those individuals to support their 'novice' colleagues, threw up many dilemmas. Among other things, doing so misjudged the developing motivations and struggles of the so-called 'experts', who were often not in a position to provide meaningful assistance. The strategy also failed to account for the changed context in which the activity systems were developing—with important aspects of the previous initiative's support infrastructure and technology provision rendered unavailable as the pandemic situation unfolded. These findings highlight both the central influence and problematic nature of historical precedent in Covid 'pivot' situations, which are often a resource for senior decision-makers as well as a backdrop for all practitioners, and the importance of understanding how support infrastructures—including those of digital technology—change and develop over time.

Our research agenda for the Covid-19 'pivot', therefore, is increasingly turning towards a focus on change with a heavy accent on issues of historicity. An upcoming paper, for example, will present a case study of two distinct teaching activity systems which intersect in an international higher education setting: a campus, in PRC China, operating as a teaching partnership between overseas and Chinese

universities. Our findings highlight how various differences between these two teaching activities, differences which predated the Covid period, were progressively amplified and exaggerated during the course of the year under study. The two activity systems we examine—corresponding to teaching practices undertaken by staff of a UK university and the teaching partner from within China, respectively—developed along increasingly divergent trajectories, which, we suggest, occurred as a consequence of distinct underlying values and histories, and encounters with different dilemmas. Coming to an understanding of why such a divergent trajectory might happen, we suggest, can help us to overcome the narrow and circumscribed understanding which dominates much of the scholarship.

We are delighted that several of the articles in this special issue already start to address historical issues in various ways. Some do so quite directly: Petichakis (2022), for example, compares a course in its new, ‘online flipped’ variant with the pre-pandemic version and draws attention to changes in design and student experience, while Gatrell (2022) traces the ongoing struggles arising from supporting teaching staff in enacting change against the backdrop of particular institutional provision. For others, historicity is expressed via culture and values. Al-Ali (2022), for instance, adopts a feminist perspective to address how students perceived as historically marginalised addressed the challenges of learning under pandemic conditions in unexpected ways, while Marín (2022) explores the evidence for retaining explicit pedagogical values (student-centred learning) in the move to ‘emergency remote teaching’. Each of these narratives challenges, in different ways, a narrative of temporary, enforced practice ruptures circumscribed by technology.

Our comments above, and the papers included in this issue, suggest a range of starting points for a future research agenda which can provide significant insights into relationships between technology and change in educational settings. By unpacking such change against a backdrop of historicity—encompassing developmental trajectories of individual people and educational projects, course offerings and pedagogical practices, institutional structures, cultural values, and more—we can seek to derive wider lessons from the unexpected events of the past couple of years. Doing so, we suggest, is much more valuable than positioning the Covid-19 ‘pivot’ as merely a novel curiosity. Furthermore, by asking questions about the *reasons* for describing the situation in particular ways—for “anxiously conjuring up the spirits” of an exceptionalism that seems, to some degree, unwarranted—we might perhaps start to understand which underlying trends have been accentuated by the pandemic, and *why* such an accentuation has been excluded from view.

3. The Gogglebox Lecture—Charles Crook

“Face-to-face lectures in Cambridge have been cut, so why haven’t tuition fees” thundered the Daily Mail in May 2020. But how curious that the pandemic impact on undergraduate education was so often expressed in terms of *lectures*—and their migration online. Curious, because many educational commentators argue that learning would benefit if lectures were *always* online. Dr Johnson gave us grounds for such an argument as long ago as 1791:

People have nowadays got a strange opinion that everything should be taught by lectures. Now, I cannot see that lectures can do as much good as reading the books from which the lectures are taken. I know nothing that can be best taught by lectures, except where experiments are to be shown. You may teach chemistry by lectures. You might teach making shoes by lectures!

This insight seems yet more secure in the age of video—when even making shoes doesn’t demand co-presence with some lecturer². Indeed, in its everyday use, the very word “lecture” has come to signal impatience (“I asked what she thought, and she gave me a lecture”). Yet during my recent interviews with a sample of lecturers, no one believed their practice involved hectoring audiences. In fact, these lecturers expressed a very dialogic conception of their practice. That practice was not an exercise in expository transmission, it was an exercise in intersubjectivity.

Not that “intersubjectivity” was a word bandied about in these conversations. But its core meaning was recognised: namely, a deliberate effort to manage mutual understanding between people in relation to their psychological states. Particularly—in the case of lecturing—cognitive states of shared meaning making. At the same time, these lecturers were wary of *performance* metaphors, even though effective theatre also invokes intersubjectivity. As playwright David Hare comments: “Lectures and plays are alike in relying for their true vitality on the richness of the interaction between the performance itself and the thoughts and feelings created by the unspoken reaction in the room”. Yet how can this precious quality of engagement be protected when a pandemic keeps us out of the ‘shared room’?

In my view, if lecturing is to work well then there are two versions of intersubjective investment that need protection. There is that created (live) between the lecturer and the individual student, and there is that recruited (later) by stu-

² <https://www.youtube.com/watch?v=Vz7ZkdEq4vQ>

dent peers who attended the same occasion. Research might usefully gain access to how both of these are managed—in the interest of optimising the design of good practice. But how can such things be rendered visible?

My own approach was to invite friendship pairs to view collaboratively a 'captured' videorecording of some chosen lecture. In the pre-pandemic world the students might do this together in the same study space. However, Covid intervened: so could such an exercise happen online? In which circumstance, the lecturer is only present as a recording, and the remotely collaborating students are only co-present through two further windows on the same screen. Those students (representing a variety of disciplines) could then use screen controls to stop the recording at any point and voice their "unspoken reaction in the room". This they did—reporting at the end a rather unexpected degree of engagement. There are three layers of scrutiny that can be applied to the recorded outcomes of such sessions. First, the educational researcher can apply a theoretical lens to speculate how the lecturer-student dialogue might normally get constituted during a class. Second, the lecturer himself can apply a professional lens to evaluate possible tensions between intended and constructed meaning. Third (and most speculative) other students can learn vicariously from watching recordings of these 'capture collaborations'.

From observing such unusually configured lecture experiences, what is revealed? The present intervention was only modest in scale, so findings inevitably start on the old reporting mantra: "we observed much variability in participant practices". That conclusion is not entirely evasive. Different levels of confidence and creativity in this arena do need to be acknowledged—because they can inform useful re-mediation. The variability was expressed as student pairs differing greatly in frequency of pausing the lecture in order to launch an implicit speaker/audience conversation: that is, one integrating themselves with the lecturer's narrative. However, the more interesting variability findings concern the terms in which such conversations were constructed.

Sadly perhaps, many prompted conversations were triggered by a simple urge to summarise what the lecturer had just said. This somewhat deferential attitude echoes findings with students reviewing lectures from textual annotations (Crook, 2002). Nevertheless, other more potent conversational 'triggers' are possible, and even the 'summarising' variety can also lead to creative elaboration of lecture material. Some pairs did find those opportunities. Such conversations might be critical ("I do think at this point she ought to explain...") and might include interrogations of content ("Surely if you did that then you should get...").

More promising conversations arose from pairs who found openings to take what was being said and link it to their own experience (e.g., on professional placements). However it was disappointingly rare for students to link something a lecturer said to material presented from elsewhere in their studying, or to themes within other lectures (although lecturers themselves seemed rarely to cross-reference their expositions—so perhaps it's a strategy poorly modelled).

What promise exists for this form of intervention? Simply making better use of 'captured' teaching during a socially-distancing pandemic is one opportunity. But it may be that lecturers themselves have the most to gain from records of these student collaborations. Lecturers' ambitions to orchestrate classroom intersubjectivity require realistically appreciating the conversational dispositions of their audiences. Making such implicit conversational exchange more visible to the lecturer can act as a reality check on that understanding (yes, dear reader, insert ecological validity cautions here). The other form of intersubjectivity arising from lectures relates to their support of *community*. For students, that is something dependent on an awareness within the peer group of shared experience within learning contexts. We live in times when residential education naturally celebrates the advantages of this 'learning community'. That is welcome but learning communities can only flourish if their members are resourced for communication. That means students recognising that they have had shared experiences which can be used to explore common disciplinary interests together—in their own time (and in the community space). One reason for protecting live lectures is the shared knowledge that can be cultivated within them as a key form of socially-mediating resource for attendees. Such peer intersubjectivity may be further enriched when the shared experience is deepened in the way described above.

4. Hybridity as nebulous: thinking hybridity beyond fluidity—Maria Cutajar

4.1 Introduction

In this commentary I consider hybridity in contemporary learning and teaching. I start by considering the ageless concept of hybridity signalling the need for a critical approach to the pursuit of hybridity. I will then refer to a personal experience of hybridity which triggered a group reflection exercise with faculty colleagues. This exercise served as a case in point signalling the need for caution. In practice, hybridity potentially brings about benefits and opportunities but also threats and risks. In a final section, I draw attention to different understandings of hybridity seen emerging

from the Technology Enhanced Learning (TEL) literature as an array of alternative viewpoints. I claim alternative interpretations as commensurate. I also propose 'hybridity as nebulous' a more comprehensive metaphor for making sense of hybridity in a contemporary world of intricate human and non-human entanglements.

4.2 The ageless concept of hybridity

Hybridity has intrigued humanity since antiquity. Greeks had the centaur and the Harappans had the unicorn (Wikipedia, 2022). From these ancient times, hybridity was reckoned to wield extraordinary powers in combining the strengths of different entities creating a new distinct derivative. As a concept, hybridity rises above specific disciplinary areas in being "something that is a mixture of two very different things" (Cambridge Dictionary Online).

Notwithstanding, the concept of hybridity in recent history is also linked to Biology (Nørgård, 2021). In fact, an alternative definition of the term in the Cambridge Dictionary online defines hybridity as "plant or animal that has been produced from two different types of plant or animal, especially to get better characteristics" (Cambridge Dictionary Online, added italics). By the added highlight again I draw attention to the aspiration pursuing hybridity to create something better, but just as much the need to recognise the possibility of hybridity leading to alternative upshots in the intermix and in living it. That is, hybrid learning environments and hybridity open the possibility to improve that which is. But along with the possibility of strengths and opportunities it brings on challenges, threats, and risks.

4.3 A hybridity experience of opportunities

The Networked Learning forum 2021 experience was for me a case in point showing up hybridity simultaneously sourcing opportunities and challenges. The event convened in hybrid modality because of Covid-19 restrictions on travel and gatherings. A few participants were physically present at the event venue while other participants joined in from remote locations. The experience led to a retrospective exercise collaborating with two other faculty members who participated on site as well. We were particularly concerned by the challenges the practice of this hybridity modality brought on.

In the resultant paper (Lister, Cutajar, & Calleja, 2022), we call attention to space time problems, pedagogical tensions and social difference concerns. The space dimension intermixing of the onsite and remote attendance so the shared space used for the event in practiced created

opportunities and challenges. The hybrid modality used to convene the forum permitted us to go ahead with the event. It permitted participants who were remotely located to participate despite the travel bans and restrictions on gatherings. Despite being geographically spread out across the globe, participants of this hybrid event could still congregate in the dedicated spaces and places (Goodyear & Carvalho, 2014). Remotely located participants were spared the expense, time and effort to travel to the event venue, which in turn positively impacts the increasing drive to reduce our carbon footprint. But then, for participants who were geographically located in distant time zones, the effort to join was perhaps amplified. For some registrants it may have actually served as an impedance force to participate. There were observed problems relating to the created hybrid event environment, navigating in it, and inhabiting it. The hybrid modality provided participants flexibility and agency in how and from where to participate. It provided participants the possibility to come into shared space concurrently that they were geographically distant from each other. But this created challenges relating to the practicalities of operating in the shared space and places in the mainstream using the Zoom platform. It created clumsiness and awkwardness interacting in the shared space such as the need for those on location to physically retreat from the physical plenary area when joining breakout rooms, and the sense of mismatch talking to remotely located others from one's computer device and looking at them on the big screens rather than facing them through the camera of one's device when synchronously interacting with them. The pedagogical perspective was problematised especially with regards to how interhuman interactions worked, and did not work, in this hybridity practice. While some took to make the small group discursive activity with unknown others work, for others the intimacy of the small group shared space and the prompt question were not enough to set off on the intended learning activity. The focus on interhuman relations also led to a discernment of social difference concerns emerging in the perceived privilege of physical space colocation contrasted to remote locationality. We were reminded of Bayne et al.'s (2020) appeal for caution on the perceived privilege of geophysical space. We were led to flag the need for the exploration of hybridity in educational enterprise rising above dichotomies in time, space, place, pedagogy and interhuman connectedness.

4.4 Hybridity in TEL

In the context of TEL, lowering time space boundaries combining physical and virtual ways of working has long been considered as accommodating, providing flexibility and efficiency (El-Gayar & Dennis, 2005; Olapiriyakul &

Scher, 2006; Zhang, 2008). Ali (2010) declared this online/offline space amalgamation aspiring flexibility for learning "hybrid pedagogy" interchangeably "blended pedagogy". He defined it as a means permitting learners "to attend a minimal number of classes while doing most of their studying independently via an online platform, audio- and/or videocassettes, broadcasted television and radio programmes or other multimedia" (p. 7). Recently, Eyal and Gil (2022) proposed this hybrid setup "hybrid as blended". They declare it to be a "first generation" interpretation of hybridity featuring "two distinct worlds ... Each is a separate and distinct entity, and their combination is a heterogeneous mixture ... the properties of each of these learning modes are kept separate, like oil and water, which are immiscible" (p. 15). Along with the categorisation of 'hybrid as blended', Eyal and Gil (2022) propose 2 other categorisations: 'hybrid as a space for merging interactions', and 'hybrid as fluid'. Eyal and Gil (2022) describe 'hybrid as a space for merging interaction' as the merging of the different spaces of learning activity and interactivity shifting to a more participative learning (and teaching) attitude spreading across "mobile (virtual), social and physical spaces" (p. 16). This kind of hybridity in TEL stresses the situated social perspective of learning in the invitation to lower the learning environment boundaries encouraging learning activity and interactivity to broaden and diversity in spreading across spaces and places.

Eyal and Gil (2022) interpret 'hybrid as fluid' as "*the learners' choice that crosses boundaries, rather than being limited with constraints*" (p. 19, highlighted bold in original text). They muse that while 'hybrid as a space for merging interactions' may be likened to a "compound", 'hybrid as fluid' is likened to "a 3D container [that] holds hybrid learning in its fluid state, dictating its limitations (p. 21). Hilli, Nørgård, and Aaen (2019) also propose fluidity in hybridisation as lowering online/offline space distinction along with a whole array of boundary crossings including campus/world, teacher/student, formal/informal learning and otherwise segregated disciplines. These three differentiated ways of understanding hybridity offered by Eyal and Gil (2022) are not considered to be in conflict with each other. Each derives from the dimensions that are opened to make possible alternative autonomous existences in the generation of socio-material assemblages for learning and development.

The Covid-19 appears to have boosted interest and experimentation of hyflex models for teaching and learning in the higher education context. This is evident in the exploding literature on hyflex teaching and learning these last two years. "Hyflex" modality (Beatty, 2006; 2007) draws upon the intermix of time and space. A hyflex learning environment permits participants the choice of whether

to attend class sessions and learning activities in person, from a remote location, synchronously or asynchronously. In the attempt to facilitate learning and teaching processes building in flexibility and efficiency through hyflex modality, the variation remains focused on the geophysical location of self-directed learners learning in their own time possibly at their own pace. It puts the spotlight on the time space dimensions but leaves other structuring facets of the complex learning and teaching ecology obscured.

Focusing on teacher-student relationships in learning and teaching integrating digital technologies, my research led me to learner and teacher roles "gravitating towards each other" in opening of dimensions relating to affordances technologically, pedagogically and socially (Cutajar, 2014). Koutropoulos and Koseoglu (2018) likewise contemplated this learning teaching fusion as 'hybrid presence'. In passing I make a note of my thinking that a most profound hybridisation "becoming teachers and learners for each other" (Cutajar, 2018) is achievable outside the container of formal learning, and this is realising the idealistic aspiration. Within the formal learning context, we can only hope that this hybridisation of roles is achieved to the highest degree resisting power difference forces in play. In opening structuring dimensions of learning and teaching, moving away from dichotomies, potentially we become more volatile in our hybridity beyond fluidity escaping restrictive containers and channelling terrains.

A highly visible activist advocating the dissolution of dichotomies of all sorts is Jesse Stommel and his work on "hybrid digital pedagogies" and more recently "critical digital pedagogies" (Stommel, 2012). The recent co-edited book titled "Critical Digital Pedagogy" (Stommel, Friend, & Morris, 2020) brought together many TEL field authors critically reflecting on the possibilities of digital learning and teaching with lowered boundaries lifelong and life-wide. Deepened recognition of socio-material entanglements (Fawns, 2022; Fenwick & Landri, 2012) in teaching and learning (as in all other work and life endeavours) invites us to broaden our understanding of hybridity beyond fluidity in remaining open to opening dimensions which we yet are to discern. Nørgård and Hilli (2022) also appear to be moving in this direction of openness with their contemplation of "hyper hybridity" where the "different media platforms, elements, and places are put into action to create an ecology of teaching and learning that forms complex entanglements of people, materials, contexts and media" (p. 28).

This hyper hybridity inspires me to think of hybridity as nebulous inviting people, materials, contexts and media in being part and being in a learning ecology. Such a gas (and

plasma) state of matter lets go of shape and volume permitting more freedom of movement in all directions.

As data communications, big data, mixed realities, and artificial intelligence (AI) developments continue relentlessly pushing us more deeply into the postdigital age of intricate socio-material existence, hybrid as nebulous is a metaphor that to my mind take us closer to our aspired state of being hybrid and hybrid being. It conveys a greater sense of freedom in going in diverse directions. A broadened conceptualisation of hybridity as nebulous alludes to a gaseous state of matter (and mattering) spreading out in different directions in seeking to explore dimensions of discernment as they surface with deepened thinking. The highly immersive world we are precipitating into gives reason to persist deepening our thinking about hybridity transcending fluidity becoming more nebulous in the exploration of intermixes aiming to create something better. Hybridity as nebulous conveys a state of being living hybridity, a state of being “in, for and with the world” (Hilli et al., 2019). It is potentially a route of hope serving educational enterprise aspiring life-long and life-wide learning ambitions for all.

5. Post-pandemic teaching—Cassandra Sturgeon Delia

The Covid pandemic of 2019 has left a vast ripple of global effects. Scholars have worked adamantly over the last three years to provide research in all sectors to report such impacts. Despite their efforts, publishing scholarly work takes time; hence scholars struggled to disseminate work in a timely manner. The pandemic has also had a significant impact on educational practice, where unprepared educators had to be agile to change their pedagogy and learn how to teach from a distance swiftly. As the threat lessens and people seek a return to ‘normality’, we should not forget how education had to shift gears and reinvent pedagogy. What educators have experienced in the last few years has left an imprint on education that needs to be shared and scrutinised to learn from our experiences consciously. This special edition does just that, an issue focussing on the response to the pandemic to help us reflect on and consolidate the lessons learned through challenging experiences.

This commentary reflects on the current autoethnography by author Khadija Al-Ali entitled “To see or not to see; the withering boundaries of invisibility: A novice Kuwaiti tutor’s experience of teaching online” (Al-Ali, in press). This article is an interesting piece as it delves into the honest journey of a woman educator and her students and the

power dynamics they faced with online teaching/learning during the wake of the pandemic.

As a female educator who was also new to teaching online and faced challenges in continuing teaching during the lockdown, this article resonates with many facets of my own experiences. Moreover, after experiencing two sudden shifts—online and now back to face to face teaching—I can see how online learning has been ‘placed back on the shelf’ and is still not accepted as a suitable teaching approach. Papers providing insight into unique experiences can provide important contextual information regarding the enforced paradigm shift towards online learning, which is still an emerging concept in many countries. Such contextual information is crucial if we are to reflect and understand what happened during this period.

As the author used feminist theory, the paper is also useful in understanding these experiences from the perspective of empowerment and feminist pedagogy. Women’s empowerment is of significant importance within the technology education field, and the urgency of the pandemic did not diminish that importance. This article displays a powerful scene through these women’s collective struggles. What I found the most interesting in this regard, and this is what I want to emphasise, is the sense of power both the educator and students gained from being invisible. Traditionally, invisibility—or being unseen by society—has had a negative representation. Scholars have discussed being seen as a privilege (Phillips & Lowery, 2018), and studies have also described those ‘unseen’, for example, for race-related reasons, as suffering from an invisibility syndrome (Franklin & Boyd-Franklin, 2000; Franklin, Boyd-Franklin & Kelly, 2006). However, Ali-Ali’s experiences highlight that, counterintuitively, there are educational circumstances where invisibility can be experienced as something positive.

Taken all together, I feel that it would be worth further investigating the relationship between online invisibility and psychological well-being. During the height of the Covid-19 pandemic, well-being was a popular area of investigation within all fields and rightly so. In light of this article and its use of feminist theory, Ali-Ali highlights how some stakeholders used invisibility as a power dynamic to their own advantage. Thus, it would be interesting for future research to enhance our understanding of online invisibility and its impact on psychological well-being in educational settings. It seems unlikely that this phenomenon applies only to the pandemic period, and such insights are one example of the experiences that we might want to reflect upon and learn from as we try to return to more conventional teaching.

The pandemic's wake has changed the position of the education system towards technology, and we might expect innovations in post-pandemic teaching to be forthcoming from this recent experience. As Barbara Lucas (2017) has rightfully quoted, "Change is our chance to experience the new, to identify additional options and generate different opportunities", hence investigating what we have experienced can allow us to find solutions to previous research gaps through our encounters during the pandemic.

6. Lessons from Covid-19: Since you can't control it happening, get some reflections from it—Yuhong Lei

As we all know, during the Covid-19 lockdown, UK universities have been under massive pressure to move most of their academic activities online, which has influenced both teaching and studying practices (Peimani & Kamalipour, 2021). These rapid changes offered researchers a chance to study the developments that occurred, and the implications on students' learning practices, which is important because researchers have long been interested in how new technological developments are associated with practice change.

Although lots of research has been done on online teaching and learning, both before and after the Covid-19 lockdown, what practical changes the situation brings to both teachers and students are still vague and what changes (improvements) they can make in the following academic and life journey still needs to be discussed deeply. Where I study, in the Department for Educational Research at Lancaster University, has a very active Centre for Technology Enhanced Learning, and it is an important encouragement for students like me to see researchers considering the long-term impact of Covid-19 on learning and teaching. This special issue: *Technology and educational 'pivoting' in the wake of the Covid-19 pandemic*, provided a wide range of reflection of impact of Covid-19. And it brings me an opportunity to have a reflection of my learning experience and make a few suggestions for international students who study abroad, especially for Chinese postgraduate researchers. The reflection is based on my own experiences, and a recent project discussing the experiences of others.

At first, I want to mention some background. As is known to all, the UK is one of the main destinations for Chinese students who choose to study abroad. However, during the Covid-19 pandemic, international PGRs (postgraduate researchers) who were studying in the UK had a very difficult situation (Lei & Oztok, 2022). As well as Chinese PGRs, who were far away from their families and faced pressure from

both their home country and the UK. As a consequence, their previous expectations of studying abroad in the UK have been negatively influenced by Covid-19. Also, they now suffer from uncertain career opportunities in China because of the deeply rooted discriminations against online learning modes in the Chinese academic system. Mentally, they are also in a dilemma as there has been reported a growing hate against them domestically and in the UK due to Covid-related issues.

Although they cannot blame anyone for that situation, this special and difficult journey will encourage Chinese postgraduate researchers to reflect on their learning experiences and the quality of provision in the UK. Practically, the impact of Covid-19 on higher education seems to bring 'hybrid pedagogy' into a normal phenomenon in the university, which was also partly mentioned by Dale Munday (2022) in this issue. From my perspective, I agree with the opinion that the future of learning seems likely to be continued with exploring hybrid models. Maybe the future of learning becomes something people never imagine, and most of us could not even hope to control the future. Practically, we can only learn from history, especially from our own previous experience, and recent experience has encouraged this line of thinking about hybrid pedagogies.

Therefore, my first reflection and suggestion for Chinese PGR is accepting that learning happens both online and offline, and therefore using all the learning resources provided. Importantly, such students need to pay attention to the online learning resources provided by universities, even though this is culturally unusual. During Covid-19, when almost all learning activities were suddenly happening online, prominent debates critiqued the usefulness and quality of "Zoom university" or "Moodle University". However, my own experience highlighted that actually there are lots of learning resources online already, often neglected by students. As a Chinese PGR in the UK, my previous learning experience made me used to "accepting most of the learning resource and information" from teachers or tutors, which means passively receiving it from others. However, I found studying in the UK needs students "digging information and knowledge" themselves. To be honest, this is also an ability that everyone needs to obtain and use in the life and academic journey. When there are loads of knowledge and information everywhere, the capacity of seeking and selecting appropriate information is necessary for everyone.

Second, involving in the learning community (both online and offline) is important and necessary. It is common to see students with the same or similar backgrounds gathering around on campus in their own internal commu-

nities. However, I suggest Chinese PGRs try to take a big step forward. Having more communication and connection with other students and staffs in the university is crucial. Personally, I found when I try to be open and honest to others, there are more similarity between most of us, even with different backgrounds. Many of us found the need for such honest connection during the Covid-19 pandemic, and hopefully we can maintain the trend afterwards. To be more open and eager to communicate with staffs and tutors in the university brings me positive impact on my learning quality and motivation. Prompted by pandemic experiences, I found there was a gap between us—they want to know more and help us, but due to our shyness, we lack communication. As some published literature also stated that physical learning spaces have influence on students' learning experience and outcome (Bligh & Crook, 2017). By involving and maintaining in a community, PGRs' offices in the department building, has multiple functions for both social and academic activities and thus we should try to spend some or even more time in the offices (Lei & Oztok, 2022).

So, let us not lose our recent lessons: move forward to communicate with others!

7. Going digital: Developing a strategy for pivoting to greater use of technology in higher education—Michael Lower

7.1 Introduction

A small research team in the Faculty of Law at the Chinese University of Hong Kong ("CUHK Law") came together to reflect on the impact of the pandemic restrictions on teaching and learning. We wondered whether the Covid-19 restrictions were a pivotal moment for teaching and learning in Law Schools, and higher education generally.

What new practices around the use of digital technologies for teaching / learning and assessment emerged during the Covid-19 lockdowns? What lessons were learned and how are they shaping post-Covid practices? Ultimately, we were interested in whether it is possible to formulate a strategy for the future use of digital technologies in teaching / learning and assessment.

7.2 Who we spoke to and what we hoped to find out

As one part of our research strategy, we reached out to Deans and Associate Deans (Learning and Teaching) / (Education) in Law Schools in Australia and, more recently, in England. We reasoned that this group of people was likely

to be intensely involved in thinking about this issue. So far, we have conducted eight interviews, each of which lasted for about an hour. The interviews were transcribed, and the interviewees were given transcripts for comment.

We have interviewed three Deans and three Associate Deans (Learning and Teaching / Education) in Australian Law Schools, the Learning and Teaching Convenor of an English Law School (soon to be Associate Dean (Learning and Teaching) in the Faculty of which his Law School forms part) and a Scottish Law professor with a history of digital innovation in teaching and learning.

We asked the following questions:

1. Please tell us about you, your Law School and your role within it.
2. What experience did you have of online teaching and learning pre-pandemic?
3. How did this change in response to the shift to online during the pandemic?
4. Was there any change in your assessment practices during lockdown?
5. Do you feel that you learned lessons from the lockdown era that you will exploit as face-to-face teaching resumes?
6. What are the benefits / challenges of online learning for teachers / students / the Law School?
7. Do you think a hybrid mode will emerge where face-to-face and online will complement each other?
8. Has the move online created a new sense of what teaching and learning are and what it means to be a teacher?
9. How (through which processes) is your Law School / Faculty / the University developing its digital strategy for teaching and learning?

7.3 Was lockdown pivotal?

The consistent message was that the lockdowns accelerated a pre-existing shift to a greater use of digital tools. There was an upskilling of all teachers, so that even those who had not previously engaged in lecture recordings or other online tools were forced to do so. Lockdown generated innovation and flexibility when it came to assessment, both in terms of assessment tasks and in terms of the conduct of assessments.

7.4 Lessons learned from the move online

The lockdown proved that teaching and learning could carry on in some recognisable form, even when conducted online via Zoom or Microsoft Teams. Further, this brought with it greater flexibility and convenience. Students no longer needed to travel to the classroom. This was vital for those who were in quarantine or who had to balance study with caring responsibilities, for example.

Many felt that the downside of online learning was a greater sense of social isolation amongst students. Having to come to lectures together meant that students could meet one another. Some of our interviewees reported that teachers missed the buzz of the face-to-face classroom and the feedback derived from being able to observe student reactions to lectures.

One of our interviewees, however, thought that online tools could be used to allow for greater personal interaction than would otherwise be possible. She made the point that Zoom makes it much easier to have a personal meeting with a student; it no longer involves teacher and student being in the same physical location at the same time.

Several interviewees spoke of their dislike for 'hybrid' arrangements, where students could choose either to participate in a live teaching session either by physical attendance or via Zoom or Microsoft Teams. Teachers found it difficult to engage two audiences simultaneously.

7.5 Conflicting forces in the post-pandemic era

Many universities (and some Governments) were keen to get people back on to the physical campus once the lockdowns ended. There was an appeal to the idea that they are "campus universities" and "not online providers". There seems to be a sense that the physical campus should, for whatever reason or reasons, be the main platform for teaching. It would be interesting to explore the perceptions of university-level administrators in another project.

The university (and Government) drive to get students back on campus has encountered resistance from some students. While students reported a great eagerness to get back to the physical classroom, this was often not matched by their actions. Where lecture recordings were available, students often did not attend the live lecture, the convenience of watching the recorded lecture seemingly outweighing the social networking or perceived educational benefits of the live lecture. It may be that the lockdown created new

expectations that a digital alternative to face-to-face teaching would be available.

7.6 Blended learning the norm?

It may be that institutions will settle on an approach where some sessions are available online (either exclusively online or with online as an option) whilst physical attendance is required for others. One of our interviewees, told us that this was the model that emerged post-pandemic in his Law School. The face-to-face sessions are designed to be more interactive than their online counterparts and sometimes involved visiting professionals giving guest lectures.

It seems eminently sensible that pedagogical considerations should underpin the decision as to when face-to-face attendance should be mandated. More broadly, it is clearly better that students come to the physical university because of the educational and social benefits of doing so. One of our interviewees told us that the Vice-Chancellor of her university had coined the phrase 'sticky campus'.

The consistent message from our interviewees was that they thought that blended learning, some mix of physical and online teaching and learning interactions, has emerged as the norm. They all stressed that this pivot to blended learning pre-dated the pandemic.

7.7 A new understanding of 'the teacher'?

The Australian interviewees, in particular, were very clear that learning designers and technologists are now key members of the teaching team, alongside the 'subject matter specialists'. The ideal was for the Law School to have its own learning designers, to facilitate ease of access and communication, but usually they had to compete for the services of centrally located learning designers. One of the Australian Deans we interviewed argued that a shift had taken place from a 'lone teacher' model to a 'studio approach'.

7.8 A strategy for pivoting

Overall, our interviews gave us a sense of the issues that a blended learning strategy will have to address. These include:

- What is better done face-to-face and what is better done online?
- Whether to make lecture recordings available. Who chooses?
- Whether to have an online cohort option, even for face-to-face courses.

- Whether to develop fully online electives.
- How will the teaching allocation mechanism cope with lecture recording?
- Whether to recruit Faculty level learning designers.
- Assessment and academic integrity issues.
- Staff development.
- Considering appointing an Associate Dean (Digital) as well as an Associate Dean (Education).
- Developing a mechanism for the ongoing evolution of the strategy.

The interviews also provided a set of principles that should inform a blended learning strategy:

- Consider it as part of a broader teaching and learning strategy;
- Develop the strategy collaboratively (within the University, within the Law School and across Law Schools, involving all stakeholders);
- Accept that the strategy will be informed by the university's self-conception ('we are a campus / face-to-face university');
- The mission / market niche / history of the Law School (including its prior history (or lack of history) of offering entirely online courses will also inform the future trajectory of blended learning in a Law School;
- The strategy should be informed by theory (idea of the university / teaching and learning / assessment / teacher / change) that can help to get a clearer picture of the problems being confronted;
- Developments in wider society – e.g., working from home – will have an impact on attitudes; and
- Exercise caution around the meaning of 'blended' teaching and learning. Arguably, it is too ill-defined to be a useful category.

Finally, it may be that talk of a 'strategy' is misleading if it suggests that a strategy can be settled once and for all, as an exercise of administrative power, and then be forgotten. Thinking about a pivot to greater integration of digital tools into teaching and learning needs constant review to reflect the rapidly evolving nature of the issues involved.

8. A retrospective view and looking ahead— Victoria I. Marín

Now that in many countries higher education institutions are going back to "normal", the question about what is going to remain and what will be discarded is still up in the air and invites to reflect on these past years.

Research during the first semester of 2020 on emergency remote education (ERT) in higher education experienced an important boost, covered almost the whole globe and showed diversity of educational practices experiencing an online modality (Bond et al., 2021). While many voices in the educational technology field insisted on the need of using the ERT as the term to distinguish planned online education from this sudden shift (Hodges et al., 2020), a breadth of research could be identified under a variety of terms which were used also outside the pandemic context e.g., online learning, e-Learning, distance learning,...

Main findings regarding that first semester showed that instructors and students were recreating communication and interaction situations of in-campus lessons through videoconferencing, and research focused mainly on student perceptions of online learning and the impact of shift to this mode, less or almost none on actual learning behaviour (Bond et al., 2021). The increase on the use of webcams in education, but also its low use by students in online class sessions, raised also research interest, pointing out to students' personal thoughts and feelings and course characteristics as aspects that influence switching them on (Bedenlier et al., 2021). Also, many instructors started being more aware of the pedagogic possibilities of digital technologies for teaching, learning and assessment, even though the in-class recreation with the online format was still present (Munday, 2022). On the other hand, the pandemic time has also seen educational experiences that have tried to make the most of the situation to enhance student-centred learning (Marín, 2022).

Themes that were present and, most likely, with an important influence on learning in those circumstances were psychological pressures, social uncertainty and mental well-being of learners, which have also sparked much interest in pandemic higher education research (Bozkurt, 2022) and have led to the an increased awareness of the importance of emotions in learning and the need of human-centred approaches in learning design (Karakaya, 2021). Also, other aspects that were in the background until that point, but were put on the spotlight in educational technology research and practice were issues concerning the

digital divide, online assessment, datafication and virtual mobility (Bedenlier & Marín, 2022; Bozkurt et al., 2020; Marín, 2021a; Williamson et al., 2020).

After two years of disruption, many traditional higher education institutions have recovered in-presence classes, but there are still other pressing issues that require a prolonged period of time to be developed—both at the institutional and teaching and learning level. These are the aspects that involve deeper changes in attitudes and ways of doing. Two clear examples are the (further) development of instructors' digital competences and rethinking (online) assessment for enabling more authentic assessment methods (UNESCO IESALC, 2022).

Other higher education institutions are moving towards hybrid learning formats, which have been gaining momentum for combining, in a simultaneously way, on-site and online learning to facilitate learning, also increasing flexibility in the teaching and learning processes (Munday, 2022; Pelletier et al., 2022). However, further research to make them feasible in daily practice, and usable in different contexts, will be required. On the other hand, the flexibility of the "anytime anyplace" that comes with them has also its downsides and needs to be contextualized (Houlden & Veletsianos, 2019).

Beyond the pandemic time, working on all these wicked challenges -among many others - is still needed, and educational technology research will hopefully have much to say about how they could be addressed. This special issue in *Studies in Technology Enhanced Learning* is a good example of this, by making special emphasis on the importance of context and adopting a critical perspective.

9. Covid, cameras, invisibility and participation—Rob Miles

I hate online teaching. To be more specific, I hate emergency remote teaching (ERT) using videoconferencing tools, either through a learning management system (LMS) or as a standalone platform. Even more specifically, I hate synchronous ERT where I am expected to simply replicate my face to face classes in a videoconferencing platform. This is perhaps a strong position, but it is a common generalization I have heard from colleagues here in the United Arab Emirates (UAE) over the course of the pandemic as challenges and excitement have given way to continued challenges, frustration and palpable relief when a return to face to face teaching has been possible. Much of this reaction seems to be as a result of lack of participation and engagement in online

classes delivered through videoconferencing tools. Students refuse to turn on cameras, are reluctant to use microphones, and in many cases do not participate. An online class can be a lonely experience for the teacher. With this in mind, a key theme I would like to link across three papers is the use, and perception of use, of videoconferencing during the pandemic across different contexts and different perspectives.

Gatrell (Gatrell, 2022) writes from the perspective of an Educational Development Officer tasked with facilitating a Hong Kong university's move to emergency remote teaching (ERT) during the first stages of the pandemic. Indeed, Hong Kong and mainland China were among the first territories to move to 100% remote teaching as the realities of the Covid-19 outbreak became apparent. This move, in February 2020, predated my own institution in the UAE by around 6 weeks, and as such the author's experiences can be classed as those of someone among the first to face the challenges this new reality brought. Gatrell makes, in my opinion, excellent use of Cultural Historical Activity Theory (CHAT) (Engeström, 1987/2015) that allows the author to frame his findings in a way that helps to make sense of the complex and nuanced situation he seeks to describe. That CHAT is combined with autoethnography only serves to further strengthen his account that shows both "excitement and enthusiasm" and "intense emotions of stress, anxiety and fatigue" (pp. 6-7). Gatrell seeks positive and practical solutions to the problems that occur. For example, an interviewee comments on the "positive spin" the author puts on the issue of students not turning on microphones and seemingly not participating. This issue is also mentioned by another interviewee, who also cites poor attendance and lack of participation as a reason "I hate online teaching" (p. 8). This is, once again, a familiar refrain from some who found themselves suddenly, and perhaps unwillingly, thrust into 100% online teaching through synchronous videoconferencing. Indeed, poor attendance, lack of participation and unwillingness to engage through microphones or webcams remain enduring themes in my own context. While some of the faculty interviewed for his study were having positive experiences, Laurillard's assertion that

every student has the chance to ask a question in a webinar [...] the online space can be less of a challenge than face-to-face (in Lau & Ross, 2020).

does not necessarily ring true in all contexts as other papers in the special issue show. Nevertheless, Gatrell's research makes a valuable and positive contribution from the perspective of a TEL 'expert' and as previously mentioned demonstrates how CHAT can be used to frame findings and add a strong theoretical basis for research.

Where Gatrell's issues with videoconferencing focus more on the problems of access and multiplicity of platforms from a technical perspective, Dovrat's paper (Dovrat, 2022) describes the perceptions of videoconferencing as a tool for ERT from the perspectives of teachers and of students in an Israeli college. Teacher responses are almost contradictory. While most teachers felt videoconferencing lessons "were the most effective tool" (p. 6), a key takeaway is that these lessons worked "for students who *wanted to take part in the lesson*" (my emphasis). Participation, even turning on cameras, was not a given. Teachers recognized the difficulty of interacting with students who did not participate and did not turn on cameras, leaving one participant feeling that they were "teaching in the dark". Again, this resonates strongly with my own experiences. My institution initially mandated that students must turn on cameras in order to be recorded as present. The reality of mass refusal meant that this quickly became unenforceable.

From the students' perspective, videoconferencing is not considered an "effective teaching tool" (p. 8), and Dovrat cites the lack of buy-in and low motivation as possible reasons for this, reasons that may also have contributed to cheating on LMS quizzes. While not mentioned here, this issue of academic honesty raised its ugly head with increasing frequency during my own experiences of ERT. Dovrat concludes that while videoconferencing "showed promise", there is a need for policy at departmental and institutional levels if this promise is to be realized.

Such policies would need to recognize the particular challenges of the culture and society that they are operating in. For Gatrell, political complications around mainland China and Hong Kong forced the adoption of a different tool for videoconferencing, for example. Dovrat's research took place in a "diverse student body" (p. 5), although cultural or societal reasons beyond student expectations are not highlighted as reasons for poor participation in videoconferencing.

Al-Ali's (2022) experiences, however, as a novice online tutor in Kuwait, highlight some key issues specific to culture and society that are critical to female students in the MENA region and therefore my own context. The author's deeply personal autoethnography is firmly coupled to a feminist approach and demonstrates how in fact invisibility by choice may in fact 'shield' students' private lives yet at the same time 'wither' boundaries as students and teachers interact through text that allow the public and private to meet. Showing Arab female faces online may be culturally inappropriate due to gendered customs (Hurley, 2021), yet institutions in the region have insisted female students turn

cameras on. In Al-Ali's experience, however, a non-negotiable turning off of webcams as a "conscious intentional convenient choice" (p. 10) created an environment where textual communication could flourish and the individual students' lives and challenging personal situations could be recognized. Some of the situations mentioned here resonate with my own experiences—cultural concerns over showing faces and privacy, students sharing laptops with siblings, students expected to raise family members and run households while studying, students with no private spaces in which to study—all situations I had inadvertently stumbled across during emergency remote teaching. In one example, the only quiet space my student could find to complete an oral assessment was the family bathroom. I am sure this was not a unique occurrence.

Al-Ali's experiences show that policies that insist on webcams—and perhaps microphones—for participation are failing to see the reality for many students. Emergency remote teaching is just that, an emergency stop gap response. Online teaching needs to be "well-planned [and] high-quality" (Dovrat, 2022), enlist and involve advocates for change in a "successful alliance" (Gatrell, 2022) and "take into consideration students' lives" (Al-Ali, 2022). To conclude, if we are to really prevent statements such as "I hate online teaching", then we need to combine scholarship and research with practical experience and embrace the opportunities the pandemic has given us to learn what truly effective online teaching is. This special issue gives us several experiences as starting points.

10. Rockets and feathers: The special issue contributors' lessons for 'pivoting back' from emergency remote teaching—Philip Moffitt

In the energy sector there is a phenomenon known as the 'rocket and feather effect', where global shock events—such as pandemics caused by SARS-CoV-2—increase consumer costs for gas supplies. Prices of gas tend to shoot up (the rocket), yet float down (the feather). Likewise, the SARS-CoV-2 pandemic preceded a global 'pivot' to emergency remote teaching, with learning content and interactions abruptly interrupted, and rapidly moved online. The 'pivot back' from emergency remote teaching is proving more protracted, whether it intends to return to physical co-presence, blended formats, hybrid modes, or deliberately designed online learning. There are resultant challenges and opportunities for scholars in technology enhanced learning (TEL).

The term 'pivot' potentially over-simplifies the time, effort, and cost involved in the global shift to emergency re-

mote teaching, and yet it provides us with a stark reminder of the need for scholars to revisit, and purposefully redesign, these TEL experiences when 'pivoting back'. In many cases these arrangements for emergency remote teaching will not be effective in the long term, despite often being conflated with online learning (see, e.g., O'Dea & Stern, 2022). Their crisis-driven arrangements ought not to be normalised without further thought; they frequently embody high-tension, uncertain, and rapid reactions which were extemporised and lacked deliberate, critical, scholarly approaches. They were implemented in institutions which, even prior to the emergency, had been operating as "organised anarchies ... with unclear technology operating on the basis of a set of trial-and-error procedures, the residue of learning from the accidents of past experiences, imitation, and inventions born of necessity" (Trowler, 2002, p. 5).

All of the papers in this special issue highlight lessons for our scholarship, with considerations for us to revisit emergency remote teaching as we 'pivot back', aspiring to do so in more scholar ways than those in which we 'pivoted'. We need to reconsider the sustainable possibilities for TEL. The claims of time-, distance-, and cost-compression of digital technologies, whilst pragmatic drivers for managers in many education sectors, cannot distract us from the challenging work and learning we face in confronting TELs "injustices, individualisation and unsustainability" (Facer & Selwyn, 2021). We need instead to pivot back to sustainable, agentively empowering, critically engaging, purposefully designed TEL. To me, the papers' lessons for such a scholarly approach to pivoting back can be discussed in three ways: the students involved, the teachers involved, and the technologies involved.

Regarding the *students* involved Al-Ali (2021) sets out lessons for inclusivity in the complex relationships between the legitimisation of online learning, and student accessibility. Shifting attitudes to online learning illustrate how people have been historically excluded; many of whom could only have feasibly accessed education online. In 2019 the rules were rewritten, catalysing a change of attitudes to the legitimacy of online education. Prior to this point, many marginalised groups had been disavowed, informed that online learning was not permissible—until it was, because the majority needed it to be. Importantly, we are implicitly reminded in this paper that technology does not, in and of itself, make learning accessible or sensitive to students' lives—that is done by people like the author. Similarly, the literature review by Marín (2022) shows us that in pivoting back we will face a dearth of research in certain areas of emergency remote teaching, which have impacted on students, including emotional aspects of their online inter-

actions and implications for their group work. Despite these findings, the author found evidence of emergency remote teaching catalysing pedagogical change, much of which can benefit students post SARS-CoV-2.

In terms of the *staff* involved, and staff development Petichakis (2022) reminds us of opportunities for flexible approaches to teaching with online platforms, many of which were discovered by necessity in the pace of arranging emergency remote teaching. He discusses teaching through asynchronous interactions with media, including diarising and flipped learning, sustaining online social interactions whilst avoiding the Zoom-ification and Teams-ification of teaching. Turning to peer support for staff, Dovrat (2022) offers us hope in the ability of teachers to assist each other, to come together to face shared challenges with technical obstacles, and to collaboratively confront pedagogical problems that were discovered during the rapid work of pivoting. As we pivot back, we can learn much from such studies, recognising their immediacy of time- and cost-efficient delivery, their prioritisation on the provision of content for students to consume, and the derogation of staff development.

Regarding the *technologies* involved, their mediating characteristics for emergency remote teaching are discussed by Gatrell (2022) who exposes and aggravates contradictions in teaching and learning. The author uses the social impetus of the emergency to initiate a collaborative partnership for technological innovations, investigating the roles of video and other mediating technologies. Researching during the emergency, he focuses ahead on scenarios of pivoting back, building communities to envision futures for online, co-present, blended, and hybrid learning. Mediating technologies are also considered by Saliba et al. (2022), who present lessons for us in how people leverage technology, when solving everyday problems during emergencies. Their participants call upon digital tools to innovate in medical fields, identifying substitutes for co-present practices such as shadowing senior colleagues. Munday (2022) reminds us of the importance of digital pedagogy when incorporating technologies into practice, problematising the confusion that can arise when teachers and learners are faced with a bewildering choice of technological media and platforms. These authors illustrate for us that technologies do not have a life of their own, whether they are used in pivoting or in pivoting back. They instead mediate the intentions of real, living, breathing, social groups in TEL.

Returning to the opening analogy of rockets and feathers, in the periods following global shocks these higher gas prices often become the new norm for consumers; in their feather-like descent they seldom return to pre-shock prices

before a new shock launches a new rocket, sustaining higher prices. In TELs pivoting back, we need to mitigate the risks identified by these contributing authors, whilst sustaining their observed advantages, before practices are entrenched which were implemented in haste. We need to confront and challenge the normalisation of emergency remote teaching, and we need to oppose the conflation of emergency remote teaching with deliberately designed online learning. The challenges of pivoting back—and doing so with a scholarly approach—are significant, yet so are the opportunities. The special issue shows us the importance of an outlook of “non-stupid optimism” (Facer & Selwyn, 2021), which coupled with a scholarly approach to pivoting back can help us, as we critically examine the mediating effects of technologies for the people involved in sustainable TEL

11. Beyond ‘pivoting’: Capitalising on new knowledge and experiences—Dale Munday

Studies in Technology Enhanced Learning’s (STEL) recent special issue focused on technology and educational ‘pivoting’ in the wake of the Covid-19 pandemic, which detailed the sudden and drastic change in the way education was delivered around the world. In response to national and regional lockdowns, UK universities (like most other international institutions too) had to close their doors, with only specific exemptions, and move their classes online which resulted in a move away from traditional face-to-face teaching and learning to online and distance learning (Teräs et al., 2020). This shift was accompanied by a long-running discourse on education and technological change. The rise of digital technologies has transformed the way we live and work, and education has been no exception. The pandemic shone a light on the possibilities of this alternative approach to higher education being more widespread and prevalent after the emergency pivot, with some institutions seriously addressing the potential for online higher education, following the examples set by the likes of The Open University (OU) and Arden University who have done much pioneering work with their offers of online higher education (HE).

Post pivot, students were expressing a range of views with regards to preferences of approaches to teaching and learning, with in-person experiences a priority for many students, mostly online approaches being a priority for some, and a blend of both seemingly crossing the divide (Advance HE/HEPI 2021; UUP Foundation 2021). The pandemic disrupted educational landscape created challenges for both students and educators, who had to quickly adapt to new technologies and ways of learning and teaching with minimal warning or preparation. Some of the challenges of

online learning included:

1. Lack of in-person interaction.
2. Difficulties with and access to technology.
3. Time management issues.
4. Lack of motivation. (Adedoyin and Soykan 2020)

As we emerge from the Covid-19 pandemic, elements of HE can be seen to be in somewhat of a static or regressive state with many of the traditional approaches to teaching, learning and assessment having been challenged and developed to address the circumstances now being reversed—but not quite to a pre-pandemic state. Amid the pandemic, online learning was ubiquitous and the default for the majority in the higher education sector due to the restrictions imposed by the government (Lockee 2021). Yet as restrictions relaxed, a majority of HE providers (or at least some influential stakeholders) were keen to return to ‘normal’ and offer students the full on-campus experience once again. This involved a return to face-to-face lecturers, seminars and workshops (albeit socially distanced), however due to the ongoing risk of Covid-19 not all students and staff were able to return to normal. Institutions were looking at alternatives and a hybrid approach was taken by some.

Hybrid learning emerged as a term synonymous with a post-pandemic approach and one that still dominates current discourse, with many looking to address the next norm for higher education. Hybrid learning can be defined as a learning approach that combines both remote learning and in-person learning simultaneously to improve student experience and ensure learning continuity. The terms *hyflex*, *dual mode* and many others have also been used to describe this specific merging of approaches, which is possibly one of the issues currently requiring further investigation. The label for the approach is secondary and not as important as the motivation for the approach, however, as institutions look for effective ways to support students in new, innovative and creative ways.

We can start by thinking about a range of different strategies, activities, approaches and experiences that we can create to support our students. This includes thinking about how we want our students to interact with the resources that we use, how we want them to work together and how we want to support their social experiences in and out of the classroom. We can also think about how we want to support our students to develop their skills and knowledge in a more active and independent way.

None of this is likely to be smooth or uncontentious. As we continue to emerge from the pandemic approach, for example, debate around emerging hybrid approaches to HE teaching and learning have become more vociferous with the problems often seen as outweighing the potential benefits (Singh, Steele & Singh 2021). Likewise, the debate around online learning has had a similar trajectory, with scepticism initially giving way to acceptance, and then in many cases returning to rejection of this approach based on particular negative experiences. There has been much debate, both in the popular media and in academia, about the role of online learning in higher education, with many educators and students voicing scepticism about its efficacy without a solid foundation for the claims. The debate around online learning has been ongoing for many years, with proponents arguing that it is a more efficient, effective and inclusive way to learn, while detractors claim that it is not as effective as traditional, face-to-face learning lacking the social interactions required. The debate around online learning, which has a long history of hyperbole on all sides, is likely to continue for many years to come, as more and more institutions move towards offering more online courses, programmes or modules. Pandemic experiences will doubtless be leveraged to support various positions for some time to come.

The adaptability and scope for change in HE is visible, but the determination to maintain a trajectory of change must not be lost. The pandemic forced HE into unfamiliar territory, with both staff and students upskilling in numerous areas and institutional infrastructure developing seemingly overnight. In my view, blended learning offers an effective middle ground that can deliver on much of what the student and staff population want; inclusive, engaging and authentic higher education experiences. It is also not so prescriptive a term as some of the alternatives. Discussions of blended learning, within research and particular institutions, offers the opportunity to progress on from traditional constructs and terminology that has lead curriculum design and institutional approaches for decades, with the lecture dominating expectations of what HE learning looks like. With this comes potentially uncomfortable discussions around university estates, staff structure, digital infrastructure requirements, digital skills of staff and students and an overhaul of curriculum design; including assessment practices. As planning for the next academic year comes around, the hope is that the lessons learnt from the pandemic pivot and proceeding months have a real impact and lasting impression and that institutions are guided by a range of evidence and not by the norms of the sector.

12. Digital technologies at a 'pivotal' time: educational, pedagogic or technological change?—Don Passey

Educational 'pivoting' requires levels of change—whether that be at the individual, group or institutional level. To what extent educational 'pivoting' has happened recently, and what the factors and features that have enabled or hindered change processes during the Covid-19 pandemic and subsequently might be, are certainly connected with the focus of this special issue. From the articles published in this special issue, and from a view of additional pertinent literature, it is clear to see that the factors and features enabling or hindering educational 'pivoting' in the contemporary context are certainly emerging, and to aid 'pivotal' change for the future they are worthy of attention if we are to effectively take forward positive outcomes arising from the pandemic.

Educational change is a topic that has received much attention over the past 60 years (for example, Fullan, 1991; Gurría, 2011). The context for educational change has shifted across that time period, aligned with wider changes associated with social and societal features (Desjardins, 2015). One of the constant concerns for educational change has been how to positively handle the influence and potential of digital technologies, to support, or even to revolutionise, education, teaching and learning. A variety of barriers and levers that have contributed to educational change scenarios involving implementations of digital technologies have been identified at various times across those 60 years (Dinc, 2019; Ertmer, 1999; Reid, 2014; Rogers, 2000), and one of the constant barriers that has been reported has been the speed of technological change, especially when it has been compared to the speed of educational and pedagogical changes. Whilst a variety of conceptual and implementation models have been proposed to problematise and identify underlying issues associated with bringing about change in using digital technologies in education (Davis, 1989; Rogers, 1962; Venkatesh et al., 2003), the consequent speed of educational and pedagogical change has nevertheless not often been reported to be as high as some would wish. Indeed, some authors would argue that the financial commitments at national, regional and local levels to digital technology provision in education have not fulfilled the parallel and argued promises of educational and pedagogic benefits (Selwyn, 2021).

Between March 2020 and March 2022, the coronavirus pandemic led to significant changes in educational practice. Many countries closed educational institutions, across

the compulsory, further, vocational and higher education sectors (UNESCO, 2020a), whilst other countries limited learner numbers physically present in institutions (UNESCO, 2020b). Because of such restrictions and closures, digital technologies were implemented and deployed in many institutions across the world to address challenges and needs, in maintaining contact and educational practices (UNICEF, 2020). A growing body of research and policy literature is indicating the ways that teachers and tutors in all educational sectors had become more familiar with and had been using digital technologies to support teaching and learning needs (ECLAC UNESCO, 2020). This growing evidence might suggest that change in pedagogic practice was moving forward rapidly, perhaps at a rate not seen previously. It might even suggest that pedagogic change was moving at a rate that was at that time outstripping technological change (and could be continued beyond March 2022).

In a previous paper (Passey, 2021), seven key differences were identified that were identified as affecting the provision of learning during the Covid-19 pandemic period. These seven differences affected the ways that digital technologies were used in learning situations, but also were affecting the ways that digital technologies were often being considered for use beyond the pandemic period. In Northern Ireland, for example, these have been referred to as ‘Covid keepers’ (Smith, 2022).

The first of these key differences was the change in teaching medium, which in many localities moved largely from a face-to-face medium to an online medium (Yan et al., 2021). In some cases a synchronous face-to-face medium was changed to an online asynchronous medium or to a mixed online synchronous and asynchronous medium. The teaching medium (e.g., whether using online video-conferencing, or a virtual learning environment, or email) has been a focus of research and policy attention, as has change during that period (Mishra, Gupta & Shree, 2020). The uptake of virtual learning environments and remote learning environments such as Microsoft (MS) Teams, Google Classroom and Zoom has been evidenced in research and reports (see, for example, Campos, 2021), and it is clear that uses of these forms of digital technologies played a major role in this change. The challenges of this change are well highlighted in this special issue by Al-Ali (2022). Dovrat (2022), in a paper also in this special issue, studied a range of technologies that were used in the pandemic context, and found that learning management system quizzes and emails were considered more effective than videoconferencing, recorded videos, personal telephone calls and text messaging.

The second difference, the teaching mode (e.g., whether synchronous or asynchronous, or blended), was also often adapted during the Covid-19 pandemic period. Remote teaching was undertaken in some instances, whilst there was blended provision (in some lessons face-to-face and in other lessons online) in other cases. Hybrid teaching (teaching some in class with others outside class, with the latter connected online to the lesson) was implemented on other occasions. However, in this special issue, Munday (2022) has found that this mode can be less used by teachers, for a variety of reasons, than are other modes. In another paper in this issue, Gatrell (2022) also emphasises the importance of reconciling institutional with personal direction, focus and challenge.

In parallel with changes affecting the teacher, the third difference concerns the learning medium. Rather than an often face-to-face medium, the medium very often became a screen, which might be accessed with associated and connected technologies. Whilst the screen for some might have been quite large, for others it might have been somewhat smaller. The form of learning medium could clearly affect the way that communication might happen, perhaps due to the need to introduce an intervening medium, involving keyboard-entered communication or direct-spoken (but distant) synchronous video conferencing.

The fourth difference affected the learning mode (e.g., whether synchronous, asynchronous, blended with some sessions on-site and others off-site, or hybrid with some learners in the on-site location as well as others online in individual sessions). Overall, reports from the pandemic period indicated that the learning mode had shifted to become more online, or entirely online. How learners coped with that change in mode is not fully known, but some evidence indicates that some learners coped well, and benefited (Maatuk et al., 2022), while others found engagement with learning to be difficult. Evidence from interviews with learners and teachers (Smith, 2022) has indicated the positive effect for some learners in moving to an online flipped model, and this is supported by the evidence of the study by Petichakis (2022), published in this special issue.

Subsequent changes to the learners’ learning environment was the fifth difference, and this factor should not be underestimated. A learning environment in classrooms can have associated and established routines and procedures, which may have changed beyond recognition for learners during the pandemic. A learning environment in a small room, or on a shared dining table, can clearly affect learning. But, nevertheless, the opportunity to self-manage

learning has been identified as a benefit arising for learners in some reports (Pelikan et al., 2021).

Support that accompanies a learning environment is the sixth difference, as support procedures and routines in classrooms may not resemble those in homes. Support from teachers and lecturers may not be the same as those at home, although some reports have identified ways that teachers and lecturers found alternative ways to support online, not only academically, but also emotionally and socially (Baltà-Salvador et al., 2021). Marín (2022), in the paper published in this special issue, identifies a gap from a literature review, that indicates the need to explore emotional, psychological, and group work elements as important factors affecting positive outcomes arising from learning environment change. Similarly, Al-Ali (2022) highlights the importance of 'sharing experience' between tutor and students during the period of the pandemic, while Saliba, Carey and Bendriss (2022), in their paper in this special issue, discuss how a specific mechanism using design thinking was found to support innovation and change for students using digital technologies in this pandemic change context.

In terms of the seventh difference, in home situations, the roles of family and friends have also been seen to shift. Support and responsibilities that others in the home have taken on, have sometimes been positively received, but in other cases have not been welcomed or understood. The form of roles that family and friends might take, whether that of a teacher, tutor, facilitator or counsellor, for example, has not always been clear or supported through guidance (also highlighted by Schaaf, 2022).

What is clear, is that there is not a single way forward in using digital technologies beyond the pandemic, that can create a single distinctive 'pivot' for the future. Digital technologies are not a singularity; the facilities and options available to educators and learners through uses of digital technologies are many and varied. Choosing digital technologies to support contexts, to support individuals, and to support individual situations is a worthy direction to which to aspire, but should consider the seven factors illustrated above: the teaching medium; the teaching mode; the learning medium; the learning mode; the learning environment; support in the learning environment; and the roles of those 'others' within the learning environment. During the pandemic, a 'pivot' was reached (in the sense of educators needing to respond to the challenge of the situation); how far that 'pivot' will endure is open to individual choices, as much as to institutional choices and support. If educators and learners' levels of inquisitiveness and adaptability have been engaged and heightened during the pandemic period,

then we may see a desire to consider a more innovative future than we have experienced over the past 60 years.

13. Is flipping the classroom 'the' answer to online learning?—Reya Saliba

The latest events surrounding the worldwide pandemic crisis created opportunities for teachers and students to explore endless teaching and learning combinations: synchronous, asynchronous, blended, remote, flipped, hybrid, personalized, and other modalities. Our notion of the traditional learning mode was suddenly replaced by online learning, requesting a totally different approach that fuelled an ongoing conversation among faculty members where some favour the opportunity while others find it challenging. Although this is by no means a new concept, online learning is still considered one of the most controversial innovations the education system has ever known: learning can happen anywhere; teaching can take place in different forms; and tools can be repositioned to deliver any outcomes. In this commentary, I question the value of the flipped classroom for online learning drawing on my teaching practice and literature on self-directed learning.

The flipped classroom modality is a learning approach that gives students more control over their learning experience. It uses blended learning that mixes face-to-face, synchronous, and asynchronous learning. Lectures are replaced with content (reading materials, videos, presentations...) that is shared with students prior to class, giving them time to familiarize themselves with the assigned topic, while live sessions are used to deepen students' understanding of the topic through hands-on activities and group work (Roehl et al., 2013; Cheng & Weng, 2017; Gilboy et al. 2015; Mof-fett 2015).

The flipped classroom has been in vogue for the last few years and was facilitated by the availability of educational technologies, especially the use of learning management systems (LMS) as content and communication platforms between students and teachers. In my current practice, I have been using the blended teaching approach for the last nine years, adopting the flipped classroom to facilitate learning and make the best use of class time. My content was available to students through the LMS prior to a weekly face-to-face session where we focused on hands-on activities, group work, and class discussions. Student engagement was satisfactory as students were prepared for class, which allowed them to actively participate during the face-to-face sessions.

Switching to online teaching, one would assume, would be equally successful as the instructor is familiar with this delivery mode and the students would display the same level of engagement. However, that was not the case. The flipped modality, under the Covid-19 imposed remote teaching, did not allow me to establish the same class dynamics I have experienced in previous years with first-year students. Although students could still get access to materials one week prior to our live sessions, their class engagement dropped, and I found myself talking to the same small number of students that would volunteer to answer my prompts and questions and participate in Zoom live class sessions.

The article, “Review of a pivoted fully online flipped learning modality to promote reflection for early career teaching staff development” (Petichakis, 2022), gives an account of the change a face-to-face course undertook to become fully online using the flipped classroom modality. Comparing the final essay assessment task of four cohorts—two cohorts from pre-Covid-19 and two cohorts from the Covid-19 edition—the author found that “the fully online flipped classroom programme performed better”.

This leads to questioning the value of the flipped classroom for different audiences. The flipped classroom requires a high level of self-directed learning where the learner takes control of and is actively involved in the learning process (Grover, 2015). Tekkol and Demirel (2018) found a direct link between self-directed learning and lifelong learning. By self-directed learning, I refer to Knowles’ (1975) definition in which he considers students’ ability to a) take initiative; b) determine a learning goal; c) identify the sources they need; d) choose a learning strategy; and e) evaluate the learning outcome. Therefore, the article by Petichakis has a population of early career teaching staff who are working on their professional development, which can be considered a step towards their lifelong learning process. One can assume that these ‘students’ are well versed in learning and teaching, and understand the requirements of such modality, their role as self-directed learners, and the opportunity to develop their skills through online learning, hence the positive outcomes of using the flipped classroom modality.

However, when it comes to first-year college students, they seem to lack self-directed learning. Many studies have investigated the role of the flipped classroom in first-year college students’ learning. Tomas et al. (2019) found that students enrolled in a flipped classroom still require a review of the key concepts as they “appeared reluctant to engage independently with the planned activities” (p. 1), and the authors concluded that for first-year students, teachers adopting the flipped classroom modality still need to provide

guidance as to the learning process for a more conducive learning experience. This slightly nuanced approach to the flipped classroom was described by He et al. (2018) as using a traditional lecture in the face-to-face session, or using the flipped classroom sporadically, when needed, during the semester as explained by Seery (2015). In fact, van der Velde et al. (2021) reiterate the role of scaffolding and providing “guidance in pre-lecture preparation, explicit expectation management, and possibly the addition of external incentives” (p. 1157) to maintain first-year students’ motivation.

In conclusion, while a fully flipped classroom has merit in online learning as argued by Petichakis, more research needs to be undertaken to examine the level of self-directedness that the learners need to demonstrate for an optimal learning experience.

14. Classroom silence: an overlooked component of online classroom—Mengting Yu

Due to the worldwide pandemic in recent years, teaching and learning have changed a lot dramatically. Yet understanding the meaning of such change is far from straightforward. Al-Ali’s article provides a good theoretical basis for online learning and teaching, from the point of view of feminist theory. Al-Ali primarily concentrates on the feminist pedagogical online context and literature in order to frame her understanding of the online dynamics of her experience.

Al-Ali was confounded by the lack of studies and resources specifically in relation to women’s (learners and tutors) lived experiences. She found less discussion of feminist pedagogical strategies towards the online aspect, as Brown (2019) described, the present state of such literature is “still in its infancy” (p. 7). Therefore, she wrote the paper to fill the gap in the literature, especially in studies of the lived experiences of learners and tutors alike, rather than just to remark on the novelty of teaching and learning under Covid-19.

Al-Ali analysed her experiences from a feminist approach to research coupled with autoethnography, which creates a personal space to reflect and narrate her story critically (Al-Ali, 2022). Her paper enriches the feminist pedagogical perception of power and power relations in the online classroom but, I think, also sheds light on power and power dynamics in other contexts too. In other words, studying pandemic teaching and learning tells us something new about teaching and learning more generally.

Specifically, the paper raises readers' attention to students' silence in the online classroom, by using the context of Kuwaiti university. More generally, the paper re-examines some reasons why online classroom interaction and dialogues are important. There is a historical context here. Al-Nakib (2015) has criticised Kuwaiti general education (higher education) for being content-focused. But participation and negotiation are stressed in the feminist classroom and learners are regarded as "shapers of knowledge and learning" (Herman and Kirkup, 2017, p. 785). Feminist pedagogy emphasised that in a community of learners, students collaborate, and bring their personal experiences to the (online) classroom. Students learn to connect subject content with their experience (Daniel, 2021), thereby obtaining the knowledge they learnt in the classroom more profoundly. Meantime, voice is used as a metaphor which implies a strategy to empower and advance "horizontal power with" rather than "hierarchical power over" (Kenway and Modra, 1992) Thus, teachers are encouraged to allow learners to speak in classrooms, we need voices, and voices have the power to change. Those who are silent are seen as powerless and oppressed (Al-Ali). Al-Ali re-examines these debates, mentioning that later autoethnography coupled with a feminist perspective presents a powerful approach to research relationships between voice and the voiceless. What is more, Al-Ali found that Robyn Fivush's work provides a feminist framework for analysing the power dynamics, which is appropriate for examining her experience. I like the theoretical framework she designed, it could totally clearly present her work and contributions in this paper. One reason is that the conclusions are somewhat opposite to the established arguments.

The paper is strong because it is describing real online classroom dilemmas, Al-Ali explains that learning space is different when the class happens online and offline, and that this paper is a presentation of the specificity of the online context. Therefore, some more work needs to be done to understand how these findings might be relevant to other learning context. But, still, I like the way Al-Ali presents to readers some very important to take into considerations for students' lives and how these play out when they approaching teaching and learning situations.

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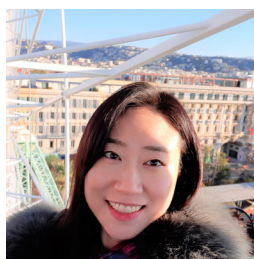
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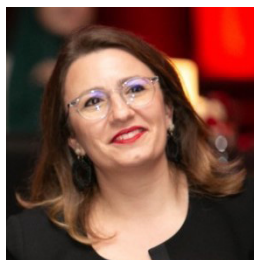
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Don is Professor of Technology Enhanced Learning in the Department of Educational Research at Lancaster University, UK, and an Honorary Professor of the Institutes of Education and of Information Technology at Amity University, Uttar Pradesh, India. He is a current staff member of the Centre for Technology Enhanced Learning in the Department of Educational Research, and was a previous director and co-director of the Centre. He is currently the Director of Studies for the Doctoral Programme in e-Research and Technology Enhanced Learning. His research investigates how digital technologies support learning and teaching. Recent studies have explored innovative and inclusive practices, in and outside educational institutions and classrooms, in off-site, home and community settings. His findings have informed policy and practice, for international institutions and groups, government departments and agencies, regional and local authorities, companies and corporations. His publications span theoretical as well as empirical studies, and the methodological approaches he adopts widely range across bespoke mixed methods. He is currently chair of the International Federation for Information Processing (IFIP) Technical Committee on Education, has chaired a number of international conferences in his academic field, and is the recipient of Outstanding Service and Silver Core Awards from IFIP for his international contributions to his field in education.

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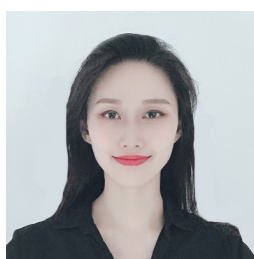
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